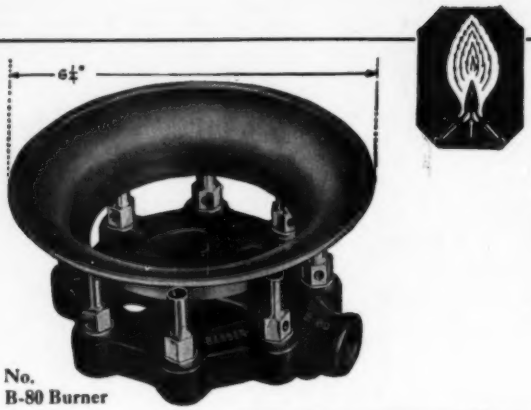
Public Utilities

FORTNIGHTLY

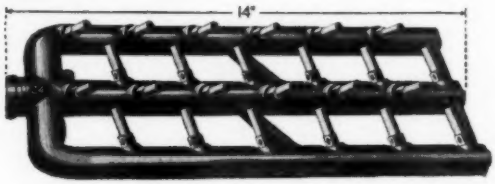
Volume XLV No. 4 February 16, 1950

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS



No.
B-80 Burner

No. C-60 Burner



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BARBER BURNERS

Public Utilities FORTNIGHTLY

VOLUME XLV FEBRUARY 16, 1950 NUMBER 4

ARTICLES

FEATURE SECTIONS

PUBLIC UTILITIES REPORTS, INC., PUBLISHERS

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PUBLIC UTILITIES FORTNIGHTLY.. stands for Federal and state regulation of both privately owned and operated utilities and publicly owned and operated utilities, on a fair and nondiscriminatory basis; for nondiscriminatory administration of laws; for equitable and nondiscriminatory taxation; and, in general—for the perpetuation of the free enterprise system. It is an open forum for the free expression of opinion concerning public utility regulation and allied topics. It is supported by subscription and advertising revenue; it is not the mouthpiece of any group or faction; it is not under the editorial supervision of, nor does it bear the endorsement of, any organization or association. The editors do not assume responsibility for the opinions expressed by its contributors.

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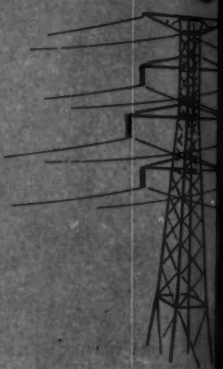
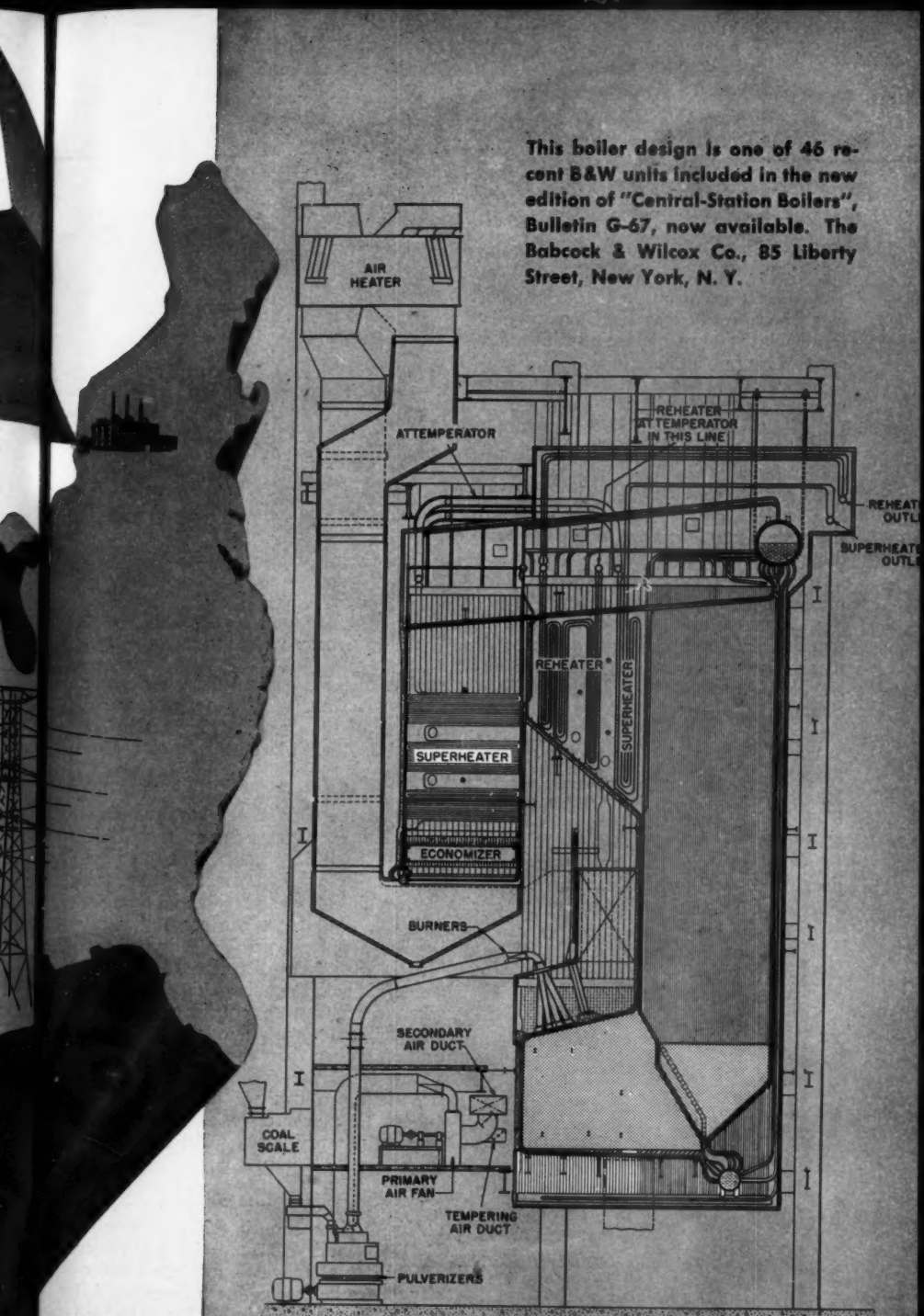
1000 F Reheat for Oswego

A new B&W Radiant Boiler now on order for Oswego Station of Niagara Mohawk Power Corporation, like the three B&W units already in service there, is designed for one-boiler-per-turbine operation. The new pulverized coal-fired installation will also incorporate a resuperheat cycle. Design capacity is 655,700 lb. per hr. at 1675 psi and 1000 F, with reheat to 1000 F.

This latest installation will bring the total steam capacity of B&W "solo" performers at Oswego to 3,330,700 lb. per hour.



BABCOCK & WILCOX



B&W Radiant Boiler now under construction for Oswego

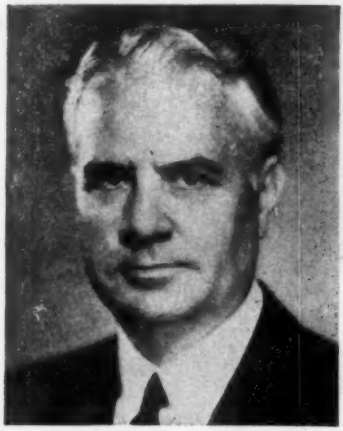
Pages with the Editors

THE opening article in this issue on the significance of the recent East Ohio Gas Case decision is the product of an author who has lived on familiar terms with state regulation of utilities for most of his public life. He is U. S. Senator from Ohio, JOHN W. BRICKER, who was once chairman of the Ohio Public Utilities Commission as well as governor of the Buckeye state.

IN recent years SENATOR BRICKER has had to deal with the Federal as well as the state commissions through the handling of proposed regulatory legislation in the Senate Interstate Commerce Committee of which he is a member. Preparing SENATOR BRICKER'S manuscript tempted us to go back through the record to see how many other state commissioners have reached the status of U. S. Senator.

IN the present Senate there are Senators H. Styles Bridges of New Hampshire, George W. Malone of Nevada, and Burnet R. Maybank of South Carolina. We might also count Senator Herbert R. O'Conor who was once people's counsel for the Maryland Public Service Commission. This brings our total to five, if we count the late Senator Clyde M. Reed of Kansas, who was a member of the present Congress before his sudden death last year.

ROBERT E. STROMBERG



JOHN W. BRICKER

So far, the statistics do not show that a former member of the state commissions has ever yet reached the White House. It will be recalled that our present contributor, SENATOR BRICKER, was the Republican vice presidential nominee in 1944. And there are some that say the late Senator Huey P. Long had ambitions in that direction before an assassin's bullet cut short his career. But when one stops to consider that full-powered state commissions were the exception rather than the rule among the states, until the second decade of the twentieth century, we may reasonably expect that eventually an alumnus of some regulatory board will find his way to the White House.

SENATOR BRICKER was born on a farm in Madison county, Ohio, September 6, 1893, and educated in a country school. He attended Ohio State University where he received two degrees (AB in 1916 and LLB in 1920). He also served as a First Lieutenant and Chap-

lain in World War I. Following his admission to the Ohio bar in 1917, SENATOR BRICKER practiced law in Columbus, serving as a member of the Ohio commission and two terms as state attorney general. He was governor of Ohio for three terms, ran for Vice President in 1944, and was elected to the U. S. Senate in 1946.

* * * *

THE author of our article "Outlook for Natural Gas in California," which begins on page 209, ARTHUR ROHMAN, is a graduate of Hollywood high school and the University of California at Los Angeles. Between 1936 and 1946 he served as managing editor and editor of *Gas* magazine published by Jenkins Publications, Inc., Los Angeles. Subsequently he operated his own publishing business. Recently he has conducted an editorial service, handling editorial and production problems for local clients in the Los Angeles area and has contributed to some of the nation's leading business publications, particularly in the utility field.

* * * *

THE article entitled "Spotlighting the Farmer's Pump," beginning on page 222, describes a new opportunity to a fairly old power load problem. It's an irrigation pump in California, and with 50,000 farm power customers, Pacific Gas and Electric went into total costs on many crops to show that pumping bills are reasonable. JAMES H. COLLINS, another California business writer and editor now living in Hollywood, tells the story of how the electric utility went directly to its farm customers in promoting the irrigation load.

* * * *

WHEN a utility company builds its own plant facilities, certain cost factors emerge which have a bearing on both tax capitalization and revenue requirements. The article on page 229 is an analysis by a Federal regulatory official of possible tax savings available to operating utilities through the use of operating personnel on company construction jobs. The author is ROBERT E. STROMBERG, assistant chief accountant of the Federal Communications Commission.

JAMES H. COLLINS

* * * *

AMONG the important decisions preprinted from *Public Utilities Reports* in the back of this number, may be found the following:

THE Wisconsin Circuit Court passes on the question whether original cost or reproduction cost constitutes a legal and proper telephone rate base. (See page 97.)

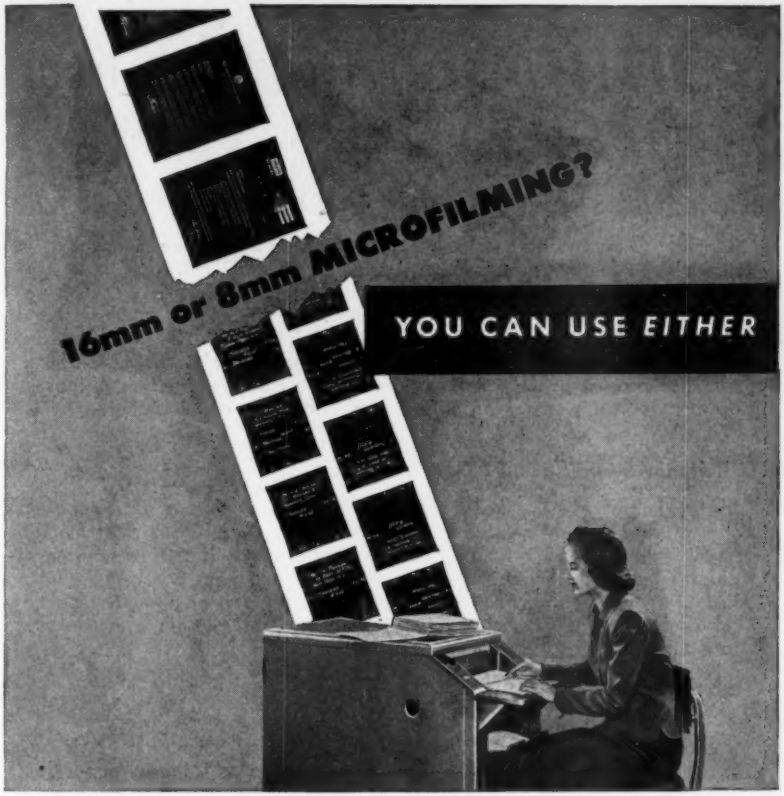
THE establishment of telephone rates on an exchange, rather than a system-wide, basis is upheld by the Wisconsin Circuit Court. (See page 97.)

A COMPANY furnishing gas, electric, and steam-heating service is authorized by the Maryland commission to make temporary rates permanent in view of the return produced by the temporary rates. (See page 116.)

THE District of Columbia commission investigates to determine whether the use of radio receivers on streetcars and busses is consistent with public convenience, comfort, and safety. (See page 122.)

THE next number of this magazine will be out March 2nd.

The Editors



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PUBLIC POWER SHOWDOWN IN SOUTH CAROLINA

Recently fourteen South Carolina rural electric coöperatives succeeded in obtaining a loan from the Rural Electrification Administration to build a vast network of power lines in central and lower South Carolina in collaboration with the state-owned Santee-Cooper Authority. How are the private power companies going to fit into this new picture? W. D. Workman, Jr., state correspondent for **The News and Courier,** Columbia, South Carolina, who has previously written about the Santee-Cooper situation, brings us up to date in this controversial field of public power development.

NATURAL GAS—EVERYBODY'S DARLING

Scarcely a day goes by that doesn't bring us news of more and bigger plans for natural gas pipelines seeking to serve the rich eastern coastal market. Specifically, in the New York city metropolitan area the steady march of natural gas has challenged the attention of the gas industry. John P. Callahan, utility news editor of **The New York Times,** has written about this peaceful invasion of the nation's largest urban center and the high financial and regulatory stakes involved.

THE HIGH PRICE OF PUBLIC PLANNING

Regional improvement planning has become one of our national pastimes. It seems to be based on the notion that we are our brother's keeper. But what started out to be a job-building function in the depression days seems to be in danger of turning into a self-perpetuating political Juggernaut. Jonathan Brooks, Indiana journalist, gives us a rather cynical viewpoint on the growth and lack of control with respect to our Federal government planning for regional projects.

MUNICIPAL OWNERSHIP VERSUS FEDERAL POWER

The steady complaint of private power company officials about the inroads of Federal agencies and their fears of federalized power has, perhaps, distracted attention from the possibility that the municipal form of public ownership may also lie in the road of such Federal invasion. Alfred M. Cooper, California writer of business articles, who has a personal background of municipal plant experience, poses some thoughtful questions about the problems which might soon beset municipal plants as a result of increasing Federal domination in the field of public power.

★

Also . . . ***Special financial news, digests, and interpretations of court and commission decisions, general news happenings, reviews, Washington gossip, and other features of interest to public utility regulators, companies, executives, financial experts, employees, investors, and others.***

Remarkable Remarks

"There never was in the world two opinions alike."
—MONTAIGNE

PHILIP D. REED
Chairman of the board, General Electric Company.

"Government subsidies, unemployment, and old-age insurances, health benefits, are made good not by the promise of government but by the production, the output of the country."

FRANCIS J. MYERS
U. S. Senator from Pennsylvania.

"Welfare state is a bogyman term. The term is used sneeringly and maliciously in an effort to convince the public that we are trying to regiment America into a sort of benevolent totalitarianism."

AUSTIN KIPLINGER
Columnist.

"The interest of the average man is in the future, not the past. And his interest is in improvement, not in staying put. American business has let government officials and politicians preëmpt the field when it comes to talking about raising the standard of living. After all, that's the business of business. Let's talk about it more."

EDMUND E. DAY
President, Cornell University.

"As a people we have been taking democracy almost entirely for granted. We have been blithely assuming that human progress by its very nature leads in the direction of freedom and democracy. That whole idea is now under sharp attack. As never before, we need to think more earnestly about the real meaning of democracy in America."

JOHN D. BATTLE
Vice president, National Coal Association.

"If the power rests with the union to decide how many days an industry or any substantial segment thereof can use its facilities to produce, then we have reached that stage where all of us should understand that we live and function at the discretion of the labor unions and that there is no equality under the law. It takes no imagination to see where this will lead."

WILFORD I. KING
Professor, New York University.

"Uncontrolled monopolies having any considerable degree of power are confined almost entirely to the field of labor. Monopolization has been encouraged and promoted by government, and monopolies thus formed have, by provision of the Clayton Act, been specifically exempted from the penalties imposed by the Sherman Act. Since the prime function of government is to safeguard the general welfare, it follows that it is the duty of government to prevent such antisocial monopolization."

WILLIAM H. WARD
Vice president, E. I. du Pont de Nemours & Company, Inc.

"Through the greater use of tools, each of us became more productive. Each of us was able to turn out better than twice the volume of 1929, and, in so doing, we more than doubled our own rewards and worked less hours for it."

A. W. PEAKE
President, Standard Oil Company.

"Our idea of free competition is reeling under the sugar-coated punches of government planning. [Americans] don't like to be pushed around. I do not think they are going to let any government tell them how to live their lives from the cradle to the grave."

WILLIAM PRESTON LANE, JR.
Governor of Maryland.

"The unprecedented high total tax bill now being paid by the American people to support all levels of government—including our huge international obligations—requires an immediate readjustment of the Federal-state tax relationship for the purpose of preserving a working Federal system."

ROBERT A. TAFT
U. S. Senator from Ohio.

"Excessive taxation is about as certain a way to socialize the country as any other way. . . . Huge government spending has from the beginning been one of the essential features of Mr. Truman's program to follow the labor socialized government of England into a totalitarian state, directing the lives and activities of its citizens."

J. E. WALLACE STERLING
President, Stanford University.

"It has been our traditional view that the state existed for the purpose of making men free to develop their faculties and that its power is and should be limited. It has also been our traditional view that a democratic state is and should be one in which conflicting opinions have free play, and in which government is made to accept the proper responsibility of explaining itself to its electorate."

HERBERT HOOVER
Former President of the United States.

"If you would like to see efficiency in the biggest business agency of the world; if you want intelligence and integrity in government; if you want the best skill of our youth recruited and used in the conduct of our affairs; and if, at the same time, you want to save the taxpayers' money, then the whole, interlocking program [of the Commission on the Organization of the Executive Branch of Government] must be adopted."

HENRY W. JOHNSON
President, New Jersey Manufacturers Association.

"Granted that this country is becoming more and more socially conscious, why must this be made ruinous by selfish political motives and the demands of minority groups, regardless of the welfare of the whole people? The atmosphere is saturated with proposals which would rob Peter to pay Paul, which would wreck our economy in the name of security, which would attempt to redistribute wealth without accompanying responsibility."

This announcement is neither an offer to sell nor a solicitation of an offer to buy any of these Shares. The offer is made only by the Prospectus.

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Common Stock

(Without Par Value)

The Company is offering these shares for subscription to the holders of its outstanding Common Stock, to whom Subscription Warrants are to be issued, and to employees, as more fully set forth in the Prospectus. The Subscription Warrants expire at 3 P.M. Eastern Standard Time, February 20, 1950.

Subscription Price $34.25 a Share

The several Underwriters, including the undersigned, may offer shares of Common Stock at prices not less than the Subscription Price per share set forth above, less any concession allowed to dealers, and not greater than either the last sale or current offering price on the New York Stock Exchange, whichever is greater, plus an amount equal to the Stock Exchange commission.

Copies of the Prospectus may be obtained from only such of the undersigned as may legally offer these Shares in compliance with the securities laws of the respective States.

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February 3, 1950.

CENTRAL ARIZONA STEAM ELECTRIC STATION

CENTRAL ARIZONA LIGHT AND POWER COMPANY

The C-E Unit illustrated here is now in process of construction in the Central Arizona Steam Electric Station of the Central Arizona Light and Power Company at Phoenix, Arizona.

This unit is of the outdoor type and is designed to produce, at maximum continuous rating, 675,000 lb of steam per hr at 920 psi and 905 F.

It comprises a 3-drum boiler with 2-stage superheater and includes a C-E Tubular Air Heater following the boiler surface.

The furnace is completely water cooled, using plain tubes on close centers in all areas except the furnace roof, which employs finned tubes.

Natural gas or oil firing will be used, but tile covered water screen tubes are provided at the bottom of the furnace for possible future conversion to pulverized coal. 8-373A

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Invisible horsepower that leaps to light a city...

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The continuous flow of electricity was too vital to our national life!

Yet, despite immense progress to date, the privately-owned electric utility companies and equipment manufacturers are working to find new uses for electricity and to provide steadily better service.

To effect economies, these companies are exploring methods of transmitting power at 500,000 volts—nearly twice as high as today's voltages.

Another phase of their research deals with the "heat pump" which heats houses in winter, and cools them in summer, by using the earth or air both as a source of heat and for dissipation of heat during the cooling cycle. Successful units are already in operation.

The uses of electricity by industry are many and varied—dielectric heating to bond wood and plastics... electronic units for smoke control... motors for power and refrigeration...

At home, electrical energy lightens housework—and one day you may cook by radar. Today a radar range can cook a steak in 35 seconds!.

Now with a powerful new X-ray tube, doctors can film super-speed movies of the blood in circulation—an advance that opens vast new fields in heart disease research.

In 1949 the electric utilities spent $2,300,000,000 for expansion of plants and facilities—part of a six year, $9-billion construction program to meet America's insatiable thirst for electric power.

The impressive record written by the suppliers of electrical energy and equipment shows once again what can be accomplished by productive labor, capable management and thousands of individual investors under a competitive business system that is free...

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NEW Cradle-Action Springs—Longer springs for greater riding ease . . . stronger springs, sturdier mounting and new spring suspension for longer life.

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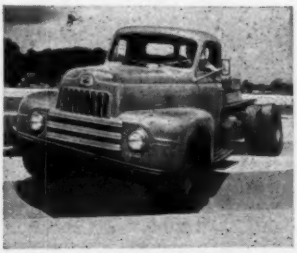

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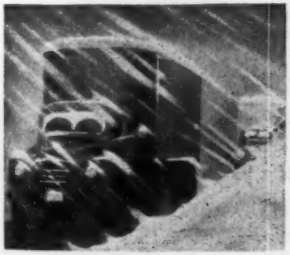

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Proved on the Belgian Blocks!

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INTERNATIONAL TRUCKS

INTERNATIONAL HARVESTER COMPANY • CHICAGO

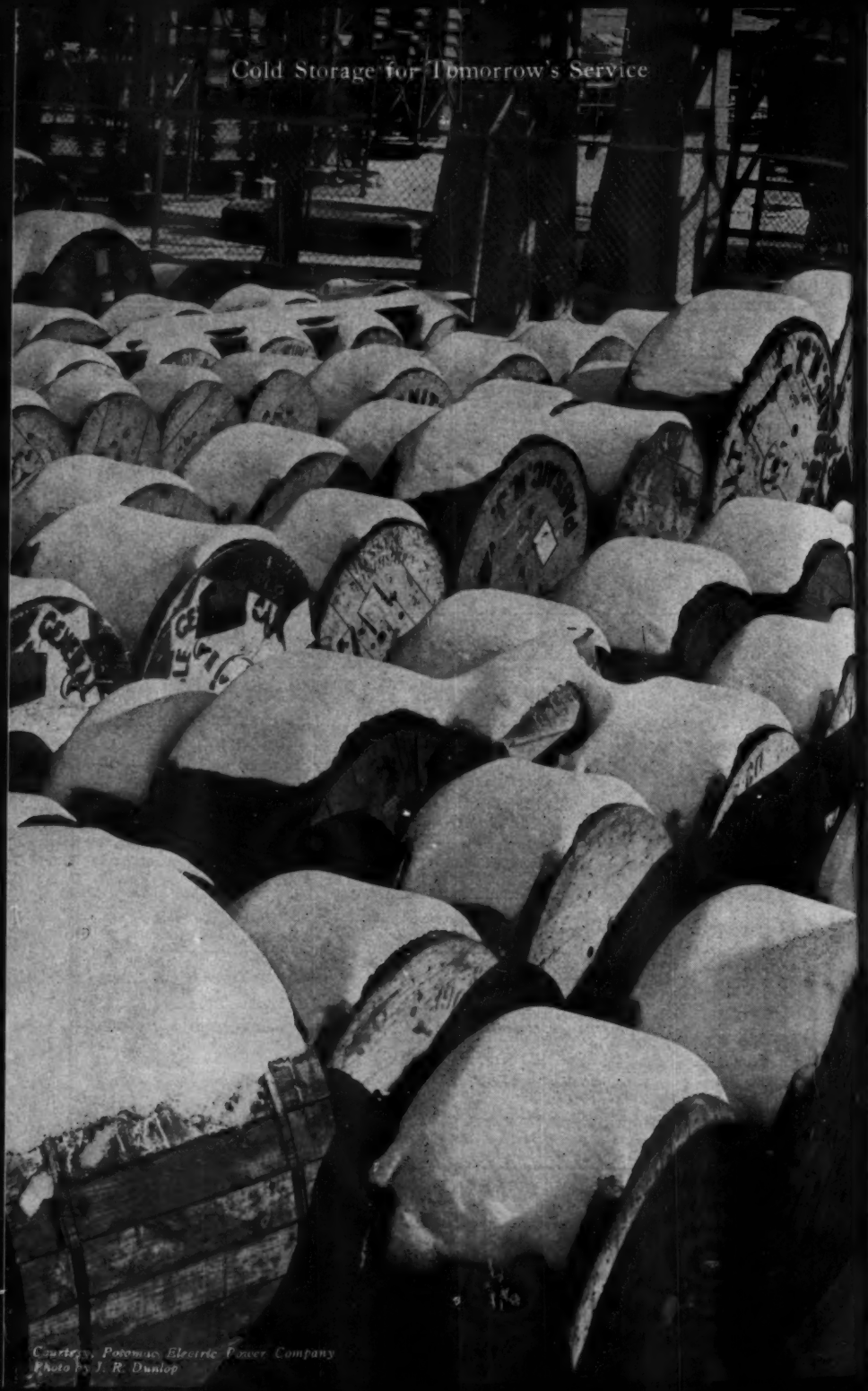
Utilities Almanack

February

16	Th	¶ *Pennsylvania Electric Association, Transmission and Distribution Committee, begins meeting, Harrisburg, Pa., 1950.*
17	F	¶ *National Adequate Wiring Bureau ends adequate wiring conference, St. Louis, Mo., 1950.*
18	Sa	¶ *Western Radio-Television will hold third annual conference, Seattle, Wash., Mar. 3, 4, 1950.*
19	S	¶ *National Association of Home Builders begins meeting, Chicago, Ill., 1950.*
20	M	¶ *Edison Electric Institute, Transmission and Distribution Committee, begins meeting, Detroit, Mich.; 1950.*
21	Tu	¶ *Minnesota Federation of Engineering Societies begins exposition, Minneapolis, Minn., 1950.*
22	W	¶ *American Concrete Institute ends annual convention, Chicago, Ill., 1950.* ¶ *National Council for Stream Improvement ends annual meeting, New York, N. Y., 1950.*
23	Th	¶ *Texas Telephone Association will hold annual convention, San Antonio, Tex., Mar. 6-8, 1950.*
24	F	¶ *National Rural Electrification Association will hold annual convention, Chicago, Ill., Mar. 6-9, 1950.*
25	Sa	¶ *American Concrete Pipe Association ends annual convention, San Francisco, Cal., 1950.*
26	S	¶ *National Electrical Manufacturers Association will hold meeting, Chicago, Ill., Mar. 13-16, 1950.*
27	M	¶ *American Society for Testing Materials begins committee week and spring meeting, Pittsburgh, Pa., 1950.*
28	Tu	¶ *American Water Works Association, New England Section, will hold business meeting, Boston, Mass., Mar. 16, 1950.*

March

1	W	¶ *Illinois Telephone Association will hold annual convention, Springfield, Ill., Mar. 22, 23, 1950.*


Cold Storage for Tomorrow's Service
Courtesy, Potomac Electric Power Company
Photo by J. R. Dunlop

Public Utilities
FORTNIGHTLY

VOL. XLV, No. 4 FEBRUARY 16, 1950

The Significance of the East Ohio Gas Case

The author of this article has lived most of his public life with state regulation of utilities—first as a commissioner, then as governor, and in recent years as a member of the Senate Committee on Interstate Commerce. He is the sponsor of a bill (S 1831) pending in Congress to spell out a limitation of Federal Power Commission jurisdiction over intrastate gas distributors, recently upheld by the Supreme Court in the controversial "East Ohio Gas Case."

BY THE HONORABLE JOHN W. BRICKER*
U. S. SENATOR FROM OHIO

THE business of producing and gathering natural gas and the business of supplying such gas to ultimate consumers have been subject to state control for many years. In the Natural Gas Act of 1938 Congress gave the Federal Power Commission authority over the middle segment of the natural gas industry, but clearly provided that state authority over production on one end and distribution on the other should not be superseded. For many years the Federal Power Commission has tried to stretch its power into the area of state regulation which Congress sought to protect against Federal encroachment. The commission's attempt to expand its control beyond statutory limits was approved by the U. S. Supreme Court

*For personal note, see "Pages with the Editors."

on January 9, 1950, in the East Ohio Gas Case.[1]

Mr. Justice Black's opinion in the East Ohio Case[2] makes statutory conflicts in jurisdiction and economic losses inevitable. From this standpoint, the East Ohio Case is of vital significance to those immediately concerned with problems of public utility regulation. Of greater significance, however, is the manner in which the intent of Congress was thwarted by administrative and judicial legislation. In discussing a similar case,[3] where the philosophy of Mr. Justice Black fortunately represented the minority view, Professor Thomas Reed Powell observed:

> Outsiders have no occasion for emotional concern over the question how this Connecticut company should set up its books or even whether it should meet the demands of both the state and Federal commissions if Congress and the state both clearly so direct. The issue here is deeper and more far-reaching than this. The relation of the judiciary to the legislature is a matter of perennial interest and one well worthy of eternal vigilance.[4]

EAST OHIO GAS COMPANY is engaged in the local distribution of natural gas in Ohio. All of its property is used exclusively for that purpose. Its property, its gas purchases and sales, its gas receipts and deliveries are all in Ohio. Gas which enters the East Ohio system is either purchased from independent producers in Ohio or from interstate wholesale companies at rates fixed by the Federal Power Commission. All such gas is sold by East Ohio to consumers through local distribution systems in 69 northeastern Ohio municipalities. The East Ohio operation is not essentially different from that of 40 other Ohio companies which supplement their local supply with gas purchased from interstate wholesale companies.[5]

East Ohio does not transport natural gas for hire, nor sell gas for resale operations which are clearly subject to FPC jurisdiction. For many years the business activities and property of East Ohio have been thoroughly and completely regulated by the public utilities commission of Ohio. The reason advanced by the court for duplicating or displacing Ohio regulation was that the gas transported by East Ohio in its own high-pressure transmission lines was subject to Federal regulation until delivered to local communities at reduced pressure. That is exactly what Congress in the Natural Gas Act tried to prohibit.

Section 1(b) of the Natural Gas Act provides that the act "shall apply to the transportation of natural gas in interstate commerce, to the sale in interstate commerce of natural gas for resale . . ." but expressly provides that the act:

> . . . shall not apply to any other transportation or sale of natural gas or to the local distribution of natural gas or to the facilities used for such distribution.

[1] Federal Power Commission *v.* East Ohio Gas Co.

[2] Mr. Justice Jackson and Mr. Justice Frankfurter dissented. Mr. Justice Douglas and Mr. Justice Burton took no part in the consideration or decision of the case.

[3] Connecticut Light & Power Co. *v.* Federal Power Commission (1945) 324 US 515, 58 PUR NS 1.

[4] Powell, Note, 58 *Harvard Law Review* 1072, 1093.

[5] About 43 similar cases involving gas companies in other states are pending before the FPC.

Throughout congressional hearings, committee reports, and debate the purpose of the act was described as that of supplementing, but not supplanting, Supreme Court concluded from its state regulation. As late as 1949 the analysis of the legislative history of the act that

> The Natural Gas Act was designed to supplement state power and to produce a harmonious and comprehensive regulation of the industry. *Neither state nor Federal regulatory body was to encroach upon the jurisdiction of the other.*[6] (Emphasis added.)

OBVIOUSLY, state regulatory commissions would not have supported a bill which provided for an overlapping of their own particular functions or which provided for an eventual diminution of their own authority.

They urged the enactment of the Natural Gas Act because their inability to regulate the price of imported gas resulted in a price floor which weakened state regulation. In explaining the bill to the Senate, Chairman Wheeler of the Committee on Interstate Commerce said that the states "retain all the state power they have at the present time,"[7] and described the bill as applying only "to interstate commerce and only to the wholesale price of gas."[8] There was no difference of opinion between the state regulatory bodies and the Federal Power Commission as to the aim of the proposed legislation. The solicitor of the Federal Power Commission made such an accord plain in these unequivocal words:

> The whole purpose of this bill is to bring under Federal regulation the pipelines and to leave to the state commissions control of distributing companies and over their rates, *whether that gas moves in interstate commerce or not.*[9] (Emphasis added.)

The East Ohio Case will, in all probability, cause consternation to the utilities and state regulatory bodies. The immediate effect of the decision upon the utilities engaged in the retail sale of gas to consumers is to require them to respond at heavy cost in money and human energy to the overlapping jurisdictions of Federal and state regulatory bodies. As a result of the East Ohio Case, the states are now advised that Congress sanctioned overlapping regulation, and a serious invasion of their authority. A decision which so completely perverts the intent of Congress deserves careful analysis.

THE crucial language in Mr. Justice Black's opinion for the court

[6] Federal Power Commission *v.* Panhandle Eastern Pipe Line Co. 337 US 498, 513.

[7] 81 *Congressional Record* 6721.

[8] 81 *Congressional Record* 9313.

[9] Hearings before a subcommittee of the House Committee on Interstate and Foreign Commerce on HR 11662, 74th Congress, 2d Session, page 24.

¶ *"IN the Natural Gas Act of 1938 Congress gave the Federal Power Commission authority over the middle segment of the natural gas industry, but clearly provided that state authority over production on one end and distribution on the other should not be superseded."*

is that "what Congress must have meant by 'facilities' for 'local distribution' was equipment for distributing gas among consumers within a particular local community, not the high-pressure pipelines transporting gas to the local mains." In other words, the theory of the court was that Congress intended reduction in pressure to mark the end of the interstate journey and the beginning of "local distribution." This is a curious theory to impute to Congress. Since state authority is not confined to gas flowing under reduced pressure, the theory of the court nullifies the fundamental purpose of Congress not to deprive the states of any jurisdiction. Moreover, the committee reports explaining the act make no reference to reduction in pressure as a determinative factor. The crucial distinction drawn in the committee reports is between sales to consumers and sales for resale.

At the outset, Mr. Justice Black was confronted by three decisions of the court itself holding pressure reduction to be immaterial in determining the division of authority between Federal and state commissions over various phases of the natural gas industry.[10] Mr. Justice Black avoids the result demanded by these cases by saying that the law which now exists did not prevail in 1938 when the Natural Gas Act was passed. Although there was no evidence that Congress intended "local distribution" to be determined only with reference to pre-1938 decisions, the law then in existence fully supported the position of East Ohio.

MR. JUSTICE BLACK attempted to show that by 1938 decisions of the Supreme Court had restricted natural gas regulation by the states to the point where gas was reduced in pressure and entered the local mains. Those decisions seemed to hold that reduction in pressure either ended the interstate journey, or at least gave to the states authority to regulate rates even if interstate commerce continued beyond the pressure reduction point. No case had held, however, that the states were powerless to regulate intrastate transmission prior to the point of pressure reduction. In fact, in the Lone Star Gas Case,[11] decided less than two months before the Natural Gas Act was passed, the court had held that high-pressure transmission lines like those of East Ohio were within the sphere of state regulation. Mr. Justice Black failed to discuss or cite the Lone Star Gas Case. Mr. Justice Black also relied on the East Ohio Gas tax case,[12] decided in 1931, which held that interstate commerce ended when East Ohio received gas at the state line, but which discussed pressure reduction as an apparently controlling factor. However, Mr. Justice Black failed to cite a later tax case clearly holding pressure changes in gas to be immaterial in the determination of state taxing power.[13]

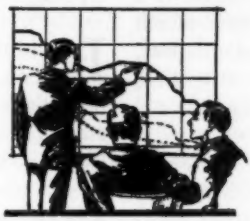
Even ignoring the two cases establishing the law in 1938, and which Mr. Justice Black failed to cite, there were

[10] Illinois Natural Gas Co *v.* Central Illinois Public Service Co. (1942) 314 US 498, 42 PUR NS 53; Interstate Natural Gas Co. *v.* Federal Power Commission (1947) 331 US 682, 69 PUR NS 1; Panhandle Eastern Pipe Line Co. *v.* Public Service Comm. of Indiana (1947) 332 US 507, 71 PUR NS 97.

[11] Lone Star Gas Co. *v.* Texas, 304 US 224.

[12] East Ohio Gas Co. *v.* Tax Comm. 283 US 465.

[13] State Tax Commission *v.* Interstate Natural Gas Co. (1931) 284 US 41.



The Federalization of Regulation

"THE growth of the Federal government and the corresponding diminution of the powers of state and local governments have, by the process of usurpation, been developing apace. If present trends continue we shall soon have a unitary form of government with the states and local governments serving merely as subordinate administrative units."

other obstacles to reaching the desired result. In the South-Eastern Underwriters Case,[14] Mr. Justice Black reached his desired result on ground that Congress did not intend for "interstate commerce" as used in the Sherman Act to be limited to the meaning of "interstate commerce" in 1890. Mr. Justice Black did not cite the South-Eastern Underwriters Case nor did he explain why the same legal principle was not applied in the East Ohio Case. That is, why did Congress intend "local distribution" in the Natural Gas Act to mean only what it meant in 1938, especially when it tried to avoid both overlapping regulation and usurpation of state authority? The application of a rule of law to punish insurance companies accused of price fixing, and the application of a contrary principle to aid the Federal Power Commission in its grab for power, is wholly arbitrary. Such action undermines the maxim that ours is a government of laws and not of men.

IT is impossible to explain the East Ohio Case on the basis of any rational standard. Even the Supreme Court knows that any intelligent division of Federal and state authority must be based on commercial and business criteria and not those of gas mechanics. The income of East Ohio, for example, comes from sales rather than from changing the pressure of its gas. It is wholly unrealistic to say that the authority of the FPC depends on whether East Ohio or its supplier reduced the pressure of the gas sold. As a seller of gas, East Ohio has no interstate characteristics, and for that reason Ohio can regulate its rates and tax its gross receipts. The East Ohio Case disregards congressional reservation of state power, careful restriction on national power, and permits ex-

[14] United States *v.* South-Eastern Underwriters Ass'n. 322 US 533.

pensive and unnecessary dual regulation. All this is done in the name of a gas pressure-reduction formula which the court recognizes as meaningless, but which it applies in ostensible obedience to "the plain congressional mandate."

As a result of the East Ohio Case, overlapping and conflicting regulation by Federal and state commissions is inevitable. Under such circumstances it is doubtful if the authority of the states in the natural gas field can survive. The order in the East Ohio Case requires the company to adopt the "original cost" accounting system prescribed by the Federal Power Commission. With reference to the commission's accounting requirements, Mr. Justice Jackson said in dissent:

> The Federal commission has ordered East Ohio to change its entire accounting system for all of its properties at a very heavy cost. This requires it either to conduct its accounting contrary to laws of Ohio and the orders of the state commission or perhaps to keep two sets of books. This is a real conflict in which experience shows state control will wither away and leave the Federal rule in possession of the field.

East Ohio's estimate of the cost of complying with the commission's order was between $1,500,000 and $2,000,000. The Federal Power Commission described this estimate as "considerably exaggerated," although it offered no testimony to the contrary. The fact is that almost every local gas distributing company in Ohio and elsewhere will be put to tremendous cost if it must maintain two different accounting systems. Gas consumers will pay higher prices. Naturally they will demand an end to this expensive overlapping.

In addition to duplicate accounting systems the East Ohio Case raises potential conflicts between Federal and state regulation. The Federal Power Commission claims authority under § 4(b) of the Natural Gas Act to allocate gas in times of emergency. The public utilities commission of Ohio has identical authority. In any conflict of jurisdiction, Ohio would probably have to yield under the East Ohio doctrine. Other conflicts of jurisdiction as a result of the East Ohio Case seem inevitable under the authority of both Federal and state commissions relating to extension of facilities, abandonment of facilities, certificates of public convenience and necessity for the construction of new facilities, and determination of the adequacy or inadequacy of gas reserves. Unless Congress is able to restore to the states the jurisdiction intended under the act, state control over natural gas distribution will disintegrate.

In the East Ohio Case, the Supreme Court, in effect, approved the unceasing effort of the Federal Power Commission to control the entire natural gas industry without waiting for Congress to act. The decision clearly comes within the category of judicial legislation of which we have had so many flagrant examples in the last ten years. In my view the language of the act was tortured to reach a desired or preconceived result. If this be true the court was clearly using its judicial power for the purpose of exercising a legislative function. The decision is distinctly redolent of the majority's own political predilections, and one

may be excused for believing that they have adopted an interpretation of the Natural Gas Act to fit such predilections.

It is still pertinent to ask, however, whether the East Ohio Case possesses any dangerous implications in view of the ability of Congress to amend the act. For example, S 1831, introduced by me and now pending before the Senate Committee on Interstate and Foreign Commerce, would unmistakably exclude such companies as East Ohio from the act's definition of "natural gas company." However, the desire of a majority in Congress to reëstablish congressional intent can be blocked by a veto of the President. The Senate fight last year over the nomination of former Commissioner Leland Olds indicates that a veto of S 1831 would be a strong possibility.

One reason for Senate rejection of the Olds nomination was his inclination to ignore limitations placed by Congress in the Natural Gas Act. The administration disseminated propaganda calculated to show that refusal to confirm Olds would enable "selfish power interests" to charge higher prices for natural gas. President Truman himself tried to make the vote on Olds a test of party loyalty. It is reasonable to believe that a similar campaign of misrepresentation might be waged against any attempt by Congress to reverse the East Ohio Case. The court's approval of the Federal Power Commission's lust for power, coupled with the possibility of a presidential veto of amendatory legislation, poses a serious threat to the constitutional functions of the Congress.

Why have the Federal Power Commission and the Supreme Court chosen to undermine state regulation which Congress was scrupulous to protect? Apparently, they recognize the fact that a complete breakdown of state authority is essential to the success of planning in a socialist state. Any program for planning the economic life of the United States requires completely centralized control over natural gas and power. So long as a considerable portion of that control is divided among the regulatory commissions of forty-eight states, economic planning by the Federal government is extremely difficult. That is precisely what Congress intended in the Natural Gas Act. Fear of an all-powerful central government likewise explains the careful constitutional division of Federal and state power.

The East Ohio Case represents the latest assault on the historic separation of powers which is still our best defense against the central economic planning of state Socialism. But regardless of the arguments for and against increasing the powers of the national government at the expense of the states, the issue should be tried

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out and determined in the political arena and in our legislative halls. It has no proper place in the judicial sphere. The process of centralization should not be encouraged and advanced by the Supreme Court, the members of which have life tenure and are not responsible to the electorate.

IN my opinion, it is imperative that we take an intelligent look at our position and our present trends and to that end I introduced a bill (S 767) on February 3, 1949. This bill provides for a commission to make a study of our Federal system and make recommendations to the Congress with respect to appropriate allocations of functions among the national, state, and local governments and appropriate allocations of the various fields of taxation to support such functions. The growth of the Federal government and the corresponding diminution of the powers of state and local governments have, by the process of usurpation, been developing apace. If present trends continue we shall soon have a unitary form of government with the states and local governments serving merely as subordinate administrative units. The bill to which I have referred provides for a thoroughgoing study of the entire question, from which, as we hope, will emerge an intelligent chart of our future course. If our Federal system is to be altered, the alteration should be the result of intelligent choice. State and local governments are now losing their functions and powers by the processes of usurpation and attrition.

When a utility, operating exclusively in one state and exempted by Congress from Federal regulation, can be delivered by the fiat of a Federal court into the power hungry grasp of a Federal commission, it becomes clear that we should take our bearings and ask ourselves—whither?

Importance of the American System

"IN my judgment, the greatest contribution to the welfare of mankind in all its history is the American system of production—the vital, competitive, incentive system designed and proved to produce more goods more efficiently and to distribute them more widely than any other system.

"At all costs let us not lose this. If we maintain and improve it, there will be no difficulty about increasing the amount and duration of unemployment insurance, in which we so deeply believe, and other desirable measures to guard against life's hazards and old age.

" . . . If we stifle the system by destroying or impairing too much of its freedom of individual action or incentives, we lose all."

—PHILIP D. REED,
Chairman of the board, General Electric Company.

Outlook for Natural Gas Industry In California

Gas has been a part of California life for almost a hundred years. The competitive fuel problems which exist today continue to challenge the best brains and efforts of the industry. But here is an account of successful progress made to date in the Golden state.

By ARTHUR ROHMAN*

THROUGHOUT the almost one hundred years that gas service has been a part of the life and economy of the state of California, conditions affecting this privately owned industry, its sources of supply, and its market demand have never remained static for any considerable period of time. For the past forty-two years, natural gas, because of its availability, convenience, and cost, has been extensively used for cooking, water heating, space heating, refrigeration, air conditioning, and as a fuel by a wide variety of industries. Its principal competition are oil and electricity.

In 1948, six California gas utilities served a total annual load of 422.7 billion cubic feet to approximately 2,600,000 domestic and commercial and 5,700 firm and "interruptible" industrial customers, representing about 15 per cent of the nation's gas utility sales.[1]

Today the Pacific coast gas industry faces the same two major jobs that confronted it in 1854 when gas was first introduced to San Francisco — how to get enough gas and how to sell it.

A new set of factors, however, affect the solution of these basic problems, the most important being listed as follows:

1. POPULATION GROWTH. Prior to the war in 1940 the population of the state was 6,907,387. By January 1, 1948, this figure had increased to 10,264,400, a 48.6 per cent increase. In that same period gas customers in-

*For personal note, see "Pages with the Editors."

[1] Data from American Gas Association *Gas Facts.*

creased 55 per cent.[2] It has been predicted that by 1960 the total California population will exceed 14,000,000, as estimated by Professor Spurr of Stanford University. The growth of the West in general and California in particular is revealed by the increasing percentage of total U. S. population situated in the Golden state. The percentage in 1900 was 1.95; in 1920, 4.62; in 1940, 5.25; and in 1949, 6 (estimated).

Population growth has developed around two centralized areas, the Los Angeles basin and the San Francisco bay area. As a result, the state is served by two of the nation's largest utility companies, the Pacific Gas and Electric Company in the northern part of the state (919,623 gas meters); and the Pacific Lighting Corporation, whose subsidiaries, the Southern California and Southern Counties Gas companies, with 1,354,821 active meters as of January 1, 1949, comprise the largest natural gas system in the world.

Trend: The California gas utility industry is assured of a steadily growing market for a number of years to come.

2. Supply. In 1942 it became apparent that gas reserves and current availability within the state would not be sufficient to meet the demands of this growing population, and steps were taken to import gas from "out of state." The first large diameter transmission pipeline bringing gas from southeast New Mexico and west Texas was completed in October, 1947.

Barring new large gas discoveries, a decrease in California production of both oil-well and dry gas is anticipated. As a result, the capacity of the Texas-California pipeline to the southern California area is now being increased, and a second interstate line, designed to bring 400,000,000 cubic feet of Texas gas daily into the San Francisco bay area is now under construction.

Trend: As population grows and California reserves level off, the need for "out-of-state" gas will increase.

3. Market Demand. During the war the California gas industry's primary problem was one of procuring supply to meet demand. Within recent months, however, there has been an abrupt shift from deficiency to oversupply in fuels, described in September, 1949, by Pacific Coast Gas Association President Arthur F. Bridge as "unprecedented in our history."

While the short-term trend is downward, between 1932 and 1948 the per customer use of gas on the Pacific Gas and Electric system increased 187 per cent, a typical California experience. A recent long-term government survey, however, indicated a deficiency in gas supply by 1952.[3] Estimates for that year have ranged from 539 to 641 billion cubic feet as compared with gas sales for 1948 of 422 billion cubic feet. More gas than is currently available will be needed to meet the total 1952 estimates for both firm and interruptible loads.

Trend: The industry in the near term faces increased competition for the industrial market from low-cost

[2] Increase from December, 1940, to December, 1948, about 40 per cent; from 1939 to 1948, about 45 per cent.

[3] *Gas Age*, March 17 and 31, 1949—"National Security Resources Board Estimates Total Gas Industry Supply and Requirements 1948-52."

oil, and for its basic domestic cooking and water-heating loads from the electric industry. The task of meeting large long-term requirements is primarily an engineering problem, involving the development of adequate storage to meet peak loads.

4. Load Equation. The primary difficulty in load equation in California lies in the fact that supply is relatively constant, whereas demand is seasonal. The virtually universal use of gas for space heating not only in homes but also in commercial and industrial establishments produces very large peak demands during periods of unusually cold weather. The ratio of winter to summer loads has at times reached 7 to 1.

Trend: Growing per customer demand, particularly for space heating, will tend to accentuate the winter peak problem. While various types of auxiliary fuel supply are being used, the further development of underground storage appears as the most economical means of assuring adequate gas supply for peak periods.

5. Rate Relief. Higher price levels for wages, supplies, capital, and fuel at sources have made it necessary for both the Pacific Gas and Electric Company and the Southern California Gas Company to apply to the California Public Utilities Commission for general rate increases. On October 5th, the Pacific Gas and Electric Company was granted a 7 per cent average increase in general service rates, which will increase revenues by $3,996,000.

For the past thirty years the trend in California gas utility rates has been either static or downward. Because of this the public and extra cautious public officials may oppose the granting of belated, though necessary, rate relief.

Trend: Unless the commission grants rate relief which will insure earnings sufficient to attract needed capital for plant expansion, the present high standards of California gas service will inevitably be impaired.

The Nature of the Supply And the Market

In order to comprehend fully the problems with which the California gas utility industry is currently faced as well as some of the solutions being effected, it is essential to understand the nature of the gas fuel supply and the market demand.

Supply: Today the gas served in California is of two types — oil-well gas and dry gas.

Oil-well or residue gas is produced in conjunction with oil ordinarily at uniform rates. Thus, its rate of production is related to the market for crude oil and not to the varying demands of the gas market. Seventy-five per cent of the gas produced both in

¶ "For *the past forty-two years, natural gas, because of its availability, convenience, and cost, has been extensively used for cooking, water heating, space heating, refrigeration, air conditioning, and as a fuel by a wide variety of industries. Its principal competition are oil and electricity.*"

California and "out of state" is oil-well gas. This gas must be transmitted, utilized, or stored as it is produced.

Dry gas is produced from dry gas wells where little or no oil is present. Its rate of production can usually be regulated or varied within certain limits to better fit the gas market demand. Most of California's dry gas reserves exist in northern California, the largest, Rio Vista, being some 50 miles from San Francisco. This gives the utilities in that section a distinct advantage in flexibility of operation.

Market: Two classes of customers are supplied by California gas utilities: (1) "firm" consumers who have no alternate fuel to whom it is essential to maintain service at all times; (2) "interruptible" consumers who are required to have alternate fuel as a condition of service and who are subject to curtailment when the available supply is needed for the "firm" load.

The characteristics of service to these two classes of customers are dissimilar. California gas utilities serve almost 2,600,000 "firm" customers, including the domestic, commercial, and some industrial users. These consumers demand and receive continuous service, while their requirements fluctuate from hour to hour and season to season. Maximum winter demands for "firm" service have been as much as six or seven times that of the summer demands and hourly demands have shown an almost equal variation.

THE seasonal requirements of the approximately 1,800 "interruptible" or large-volume industrial and electric generation consumers are relatively constant. The inconvenience of using substitute fuels and the need for maintaining stand-by facilities are recognized in lower contract rates under which gas is supplied to "interruptible" industrial customers.

From the above facts it can be seen that the California gas utility industry faces problems in supplying gas as it is demanded both on a daily and a seasonal basis.

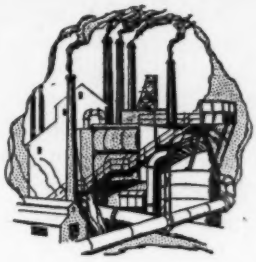
Daily variation in demand as between night and day is generally handled by (1) varying the takes from dry gas fields, (2) operating gas holders, (3) making use of pipe-line pack and draft. In both high-pressure storage holders and transmission lines pressure is allowed to build up during the night for withdrawal in the morning. As an example, approximately 50,000,000 cubic feet of pipe-line storage was provided for in the California section of the Texas-California pipeline.

In large-volume, low-pressure holders gas is stored during the night to be compressed and delivered to trunk lines as necessary during daylight hours.

The problem of seasonal load equation is of much greater import and is discussed at greater length in this article.

Development of Natural Gas Service

NATURAL gas was first served in California to the city of Santa Maria in 1907. Extensive discoveries of oil were made in the state between 1914 and 1928, and it was a natural economic development for the gas which was produced with oil to replace the more expensive manufactured gas then being distributed. By 1930 all of the principal population centers in the



History of Natural Gas in California

The California natural gas industry is about forty years old. In 1908 the number of meters served was less than 2,000. By 1948 this figure had increased to about 2,500,000. The total volume of gas handled in 1908 was less than 500,000,000 cubic feet. In 1948 this figure had increased to about 515 billion cubic feet.

Important dates in the development of the California gas industry:

1854—First gas plant, making gas from coal, opened for business in San Francisco.
1864—First natural gas developed in California from artesian water well near Stockton.
1870—First gas manufactured from oil in Santa Barbara.
1907—Santa Maria Gas Company becomes first California utility to regularly distribute natural gas.
1910—First major natural gas pipeline from Buena Vista Hills to Bakersfield.
1912—Pipeline from Buena Vista Hills to Los Angeles.
1914—Development of many oil and gas fields around Los Angeles.
1915—Pioneer stage of the extraction of hydrocarbons from natural gas.
1921—Beginning of rapid expansion of natural gas pipe-line facilities in the Los Angeles basin area by reason of the extensive oil field operation and the production of large quantities of natural gas in that area.
1925—Natural gas pipelines laid from Ventura avenue field to Los Angeles.
1928—Discovery and development of Kettleman Hills field and transportation of natural gas to northern California with first delivery to San Francisco in August, 1929.
1930—First large diameter electric-welded transmission pipeline laid from Kettleman Hills to supply San Francisco bay area.
1936—Rio Vista dry gas field begins to furnish large portion of supply for northern California.
1940—Development of underground storage at Goleta, California.
1947—First deliveries of "out-of-state" gas to California with completion of the Texas-California major gas transmission line from Permian basin area of southeast New Mexico and west Texas.

state had been converted to natural gas service.

Prior to 1932 oil-well or residue gas was plentifully available or in excess of all firm demands. Thus, there was no need for the industry to develop its own sources of natural gas supply. The "interruptible" industrial market was developed to utilize so-called "surplus" gas during the summer. Because of this dependency upon oil production, the gas industry has had to keep continuously informed on the activities and trends of events in the petroleum industry, at least in so far as they affected natural gas production.

By 1932, with the reduction of the unconserved California gas production to a reasonable minimum, the problem of peak loads and load equation became

of more concern to the gas industry.

In the period 1934-1936, with unconserved gas at a practical minimum, additional sources of dry gas were discovered and developed. The use of dry gas, particularly in northern California, provided much needed flexibility in equating daily as well as seasonal load.

However, with virtually no gas wastage in the California oil fields, with sources of dry gas being heavily drawn upon for industrial purposes both during and since the war, and with "firm" sales tripled and "interruptible" sales doubled in the ten years between 1938 and 1948, the problem of supply became more difficult. As early as 1942, with California reserves at their highest level, the need for additional sources of gas was clearly indicated.

As a result, negotiations were entered into with the El Paso Natural Gas Company to bring gas from oil fields in the Permian basin in New Mexico and west Texas to the California border. The first unit in that system was completed late in 1947, and, at present, the 1,200-mile pipeline, built jointly by El Paso and the Southern California and Southern Counties Gas companies, is bringing gas into southern California at a maximum daily rate of 305,000,000 cubic feet. Construction work already has started to step up that delivery rate to 405,000,000 cubic feet daily by September, 1952. The California section of this pipeline is known as the "Biggest Inch."

In the meantime, in order to supplement and conserve its diminishing reserves of oil-well and dry gas, the Pacific Gas and Electric Company, also in collaboration with the El Paso Company, is currently constructing a 34-inch pipeline, known as the "Super Inch," which will ultimately bring an additional 400,000,000 cubic feet of "out-of-state" gas daily into the bay area, with first deliveries scheduled for January 1, 1951.

The California Supply

Net withdrawals of natural gas in California for the year 1948 totaled a little more than 570 billion cubic feet, with about two-thirds of this production being oil-well gas and about one-third dry gas.

Oil-well gas is produced in California in three general regions: the San Joaquin valley, coastal district, and Los Angeles basin. While some dry gas is also produced in these areas, most such gas is found in northern or central California. One field, the Rio Vista field above San Francisco, accounts for 75 per cent of the state's production of dry gas.

A summary of 1948 production and utilization is as follows:

Gas Available (MCF)	
California production	574,162,663
From Texas pipeline	65,560,331
	639,722,994
Gas Industry Utilization (MCF)	
Domestic and commercial usage	227,418,458
Industrial gas sales	134,849,412
Gas company unaccounted for	21,502,440
Gas company own use	4,379,587
	388,149,897

Thus, of total production and importation of almost 640 billion cubic feet, only 60 per cent is used by natural gas distributing companies. The remainder is used by steam-electric gen-

erating plants (10 per cent); oil companies for refineries and pump stations (14 per cent); and by oil companies for field and plant fuel (14.4 per cent), while a small amount (about 1.5 per cent) is unaccounted for in the field.

With the looping of the Texas line to southern California and the completion of the line to the San Francisco bay area, an increasing percentage of the gas available in California will come from "out of state." This will tend to offset the anticipated decline in the availability of gas produced in California for utility distribution. The trend toward lower annual withdrawals from California fields is attributable in major part to three things:

1. There have been no discoveries of major dry gas fields since Rio Vista in 1936.
2. A decline in oil-well gas production is anticipated.
3. Increasing volumes of gas are being used for pressure maintenance or repressuring as a means of improving the ultimate recovery of oil.

"Out-of-state" Reserves

WHILE California reserves will tend to decrease, independent geologists have determined that the reserves of "out-of-state" oil-well and dry gas located in areas reasonably accessible to the facilities constructed or proposed to be constructed by the El Paso Natural Gas Company are sufficient to support delivery of all of that company's contract obligations (between 800 and 900,000,000 cubic feet daily) through the year 1968. Other estimates have given El Paso's reserves available to California a life of thirty years.

The utilization of Texas oil-well gas represents a clear gain to the country's total economy. In 1940 the production and transmission of the El Paso Natural Gas Company was 94.5 per cent dry gas and 5.5 per cent oil-well gas. By 1948 total oil-well gas marketed by the El Paso Company had risen to 60 per cent with 1949 deliveries of oil-well gas scheduled to approximate 75 per cent of total deliveries. Formerly much of this oil-well gas had been burned in flares as it was produced.

That vast amounts of natural gas energy in the mid-continent are still being lost is evident from a recent survey of the National Security Resources Board, which states that the total volume of natural gas vented and flared is still approximately one trillion cubic feet annually, or more than 20 per cent of the total marketed production. Although utility sales of natural gas in the country more than doubled in the years 1937 (1,284,120 MCF) to 1948 (2,894,650 MCF), such sales nevertheless continued throughout this period to account for between 50 and 60 per cent of total marketed production.

Thus, as California demand increases, it is evident that other "out-of-state" sources of gas must be developed.

¶ "NET *withdrawals of natural gas in California for the year 1948 totaled a little more than 570 billion cubic feet, with about two-thirds of this production being oil-well gas and about one-third dry gas.*"

THE inherent instability of the industrial market, both in price and volume, requires the use of good business judgment in the development of additional supplies of natural gas from "out-of-state" sources for the California market. For example, California utilities are presently faced with severe competition from low-priced oil. Yet, in 1948, during a period of peak oil prices, California industrialists urged the construction of additional pipe-line capacity to bring in more gas from Texas sources for the sole purpose of providing a long-range, uninterrupted supply for existing and prospective new industrial customers. In the few months since that proposal, oil prices have sagged to a point where such a pipeline, under prevailing prices of construction, and for gas in the source fields, could not deliver gas to the southern California market at a rate low enough to compete with fuel oil.

There has been much analysis of the gas reserves available to California. One government survey has even gone so far as to state that by 1952 under the most favorable conditions, including the completion of pipelines now under construction, the state faces a deficit of 99 billion cubic feet or 14.5 per cent of the estimated requirements of 641 billion cubic feet for that year. Without the construction of additional pipelines, a 34 per cent annual deficit is forecast.

There are so many and variable factors affecting the natural gas supply and demand in California that it is difficult to forecast too far in advance as to estimated requirements. Population trends, rates, competition from other fuels, weather, and general economic conditions all have a decided bearing on estimated demand.

The problem of supply will continue to challenge the ingenuity of the Pacific coast industry's executive and technical leaders.

Peak Loads

A MAJOR problem of the California gas utility industry, in addition to that of securing a sufficient volume of gas, is to devise ways and means of increasing the flexibility of the gas supply in order to best meet "firm" peak demands in the winter time.

To understand the problem of flexibility, a closer scrutiny of the California market is essential.

Generally speaking, the California natural gas market is divided into two practically equal sections: the area to the north of and including Fresno, which is served by the Pacific Gas and Electric Company and Coast Counties Gas & Electric Company; and the area south of Fresno, which is served by the Pacific Lighting system, the San Diego Gas & Electric Company, and the Long Beach Municipal Gas Department.

While the state is roughly divided into two equal parts as far as meters and total annual demand are concerned, the characteristics for the gas supply of each area are quite different.

Currently, 65 per cent of the gas available from California sources comes from oil wells while the remaining 35 per cent comes from dry gas fields. Broken down regionally, southern California receives 95 per cent of its gas from oil wells and only 5 per cent of its gas from dry gas fields, while northern California secures 70 per cent of its gas from dry gas fields

Developing an Out-of-state Gas Supply

"THE inherent instability of the industrial market, both in price and volume, requires the use of good business judgment in the development of additional supplies of natural gas from 'out-of-state' sources for the California market."

and 30 per cent from oil wells. Since dry gas fields are more flexible in their operation, the problem of load equation is less acute in northern California than in the south.

Although the presence of Texas gas in southern California assures sufficient volume, it brings another equating problem due to the fact that the pipe-line delivery must be maintained at a high load factor to insure economical operation. Texas gas is largely oil-well gas, and must be utilized or stored as it is produced.

SPACE heating is the California gas utilities' only noncompetitive load component, and the universal seasonal firm demand for this fuel creates large peaks which are problems to every gas utility that sells gas for space heating.

There are a number of methods of providing gas for peak purposes: stand-by manufactured gas plants, propane or butane air plants, liquefaction and storage of natural gas in high-pressure containers, and temporary use of gas ordinarily returned to formation by the oil industry in repressuring and pressure maintenance projects.

The economics of the California industry, however, clearly point to the desirability of preserving peak deliverability of the dry gas fields and to the development of underground storage in northern California and the further expansion of such storage in southern California.

Gas is stored underground by injecting it through wells into a tight and partially depleted underground gas or oil stratum. During periods of minimum demand, gas from either California or "out-of-state" sources can be stored against need during period of peak demand.

At the present time the Pacific Lighting system operates two such underground storage projects, one at La Goleta just north of Santa Barbara and another at Playa Del Rey on the coastal fringe of the Los Angeles metropolitan area. The La Goleta

project has a working storage capacity of about 12½ billion cubic feet, while the Playa Del Rey project has a capacity of about 1½ billion cubic feet.

The importance of these two projects is revealed by their high daily withdrawal capacities. From Goleta and Playa Del Rey combined it is possible to withdraw daily as much as 280,000,000 cubic feet, equivalent to 25 per cent of a maximum winter day demand of one billion feet or more.

As an example of the current flexibility of the Pacific Lighting system, the following experience is cited:

On January 10, 1949, the lowest temperature was 20 degrees and the average mean for the day was 36.5 degrees for the eight weather stations used for determining the temperature for the system.

On this day customers used 1,067,000,000 cubic feet of gas and exceeded by more than 100,000,000 feet previous estimates of the possible maximum demand for a very cold day. The supply for this unprecedented day came from:

1. Oil-well gas	396,000,000 cubic feet
2. Dry gas	50,000,000 cubic feet
3. Underground storage	262,000,000 cubic feet
4. Emergency sources	103,000,000 cubic feet
5. Texas-California pipeline	256,000,000 cubic feet

On this day the estimated amount of "interruptible" gas curtailed was 273,000,000 cubic feet, which if added to the 1,067,000,000 cubic feet would have given a potential send-out of 1,340,000,000 cubic feet. Although it was necessary to curtail the industrial load throughout the January, 1949, cold period, as well as a few large commercial customers for short periods of time, gas service to all firm customers was maintained.

Relative to the establishment of additional underground storage, several depleted oil fields within a reasonable distance of major markets in the southern section of the state are now being considered. One in particular, with a capacity 10 times that of La Goleta or capable of storing 300 billion cubic feet underground over a period of several years, if need be, is in prospect of development.

THREE plans have been suggested for maintaining the peak deliverability of California's dry gas fields:

1. That the special conditions in the rate tariffs of the natural gas utilities supplying southern California which provide that dry gas need not be supplied to "interruptible" customers be extended to northern California.

2. That volumetric controls be established fixing maximum limits on total deliveries to "interruptible" customers who could reasonably use other fuels.

3. That the prices at which "interruptible" gas is sold be raised to a level higher than the equivalent price of oil.

In addition, it has been suggested that peak demands for space heating could be reduced to some extent by changing the form of the rate tariffs now in effect.

In recapitulation, then, a primary concern of the California natural gas industry hinges upon its ability to meet winter peak demands. Both the volume and the flexibility of the California supply will be reduced by deple-

tion of reserves and by the increasing use of repressuring gas for improving the ultimate recovery of oil. Future demands must be met increasingly by "out-of-state" gas. However, since long-distance transmission lines can be operated economically only at high-load factor, pipe-line gas also must be either utilized throughout the year or stored in summer for winter use.

Underground reservoir storage is the most economical and convenient method of making available large volumes of gas for winter demand, and the California gas industry is fortunate in having depleted fields suitable for the development of such storage within reasonable distances of its major markets.

Competitive Position

A CHARACTERISTIC of the California natural gas demand has been the annual increase in per customer sales. As an example which is typical of California experience, the average annual use of residential customers on the Pacific Gas and Electric Company's system increased from 29.8 MCF per customer in 1932, to 85.4 MCF per customer in 1948, a gain of 187 per cent.

The base residential load components of the gas industry include cooking, water heating, refrigeration, and space heating. Much progress has been made in developing the desirable summer air-conditioning load, particularly for commercial establishments.

The increase in per customer use falls primarily upon the load component of space heating, and this trend has created a number of problems for the industry.

1. The problem of load equation with its winter peaks and summer valleys which is a direct result of the growth in demand for gas for space heating already has been discussed.

2. Due to greater convenience and its cheapness as compared to electricity, natural gas has virtually no competition for the space-heating market. The continually rising population trend will continue, therefore, to further throw the industry's basic residential load out of balance.

3. Space-heating load is rising much faster than other load components because of greater per customer use in (1) new homes and (2) the acquisition of all new potential space-heating load, as compared to lesser proportions of other loads.

4. Because of its poor load factor, the space-heating load is supplied at greater cost than other load components.

5. Because of the graduated block type of rate tariff now in effect, incremental seasonal heating consumption falls into the lowest price blocks. Thus, lower revenues result from a load which costs more to supply than that

¶ "A MAJOR *problem of the California gas utility industry, in addition to that of securing a sufficient volume of gas, is to devise ways and means of increasing the flexibility of the gas supply in order to best meet 'firm' peak demands in the winter time.*"

of the other load components of cooking, water heating, and refrigeration.

As a result of these conditions, the California gas utility industry is placed in an unfavorable position with its principal competitor for the domestic and commercial business, the electric industry.

Electric industry sales efforts are directed against the gas industry's most constant and desirable domestic loads, those of cooking and water heating. Promotional rate schedules, designed to favor the competitive loads which they seek, at the expense of their basic, noncompetitive loads (lighting and incidental household use) give them an effective weapon for subsidizing their cooking and water-heating business. This is in direct contrast to the gas industry, which is, in effect, subsidizing its only noncompetitive load.

All charges for space-heating service are on a volumetric basis, and none are fixed, or a function of customer demand. The solution to this problem lies in revised rate schedules for space-heating service.

While the space-heating load continues to grow unaided, the electric competition for the cooking and water-heating load increases. That aggressive sales action is needed to retain these loads both from the standpoints of load equation and net revenues, is seen in the fact that the sales ratio of gas to electric ranges has narrowed from 14.2 to 1 in 1933, to 1.8 to 1 in 1948. A similar trend in the sale of gas and electric water heaters is noted in comparing the 1939 ratio of 5 to 1 with the 1948 figures of 1.4 to 1.

None of the gas utilities in California merchandises appliances. All sales are made through independent dealers, and measures are being taken to increase the sales effectiveness of the dealer sales front.

Rate Relief

The California gas industry has taken particular pride in the fact that, despite the enormous rise in cost of practically every other commodity, the selling price of gas has remained at prewar levels.

In fact, during the past eighteen years the Southern California Gas Company, either under formal decisions or voluntarily, has made a series of rate reductions to its consumers' benefit amounting to more than $6,550,000 annually. Similar action in a like period has been taken by the Pacific Gas and Electric Company as well as other California utilities. Since the introduction of natural gas in 1930, PG&E has made major rate reductions resulting in annual savings to customers of $8,139,800 and $13,582,000.

By late 1948, however, the cost of conducting business had eaten so far into reasonable earnings that, in the best interests of the public, applications for general rate increases seemed inevitable. Such applications have been made by both the Pacific Gas and Electric Company and the Southern California Gas Company. At this writing a 7 per cent increase in general service rates has been granted to the Pacific Gas and Electric Company, while hearings on the application of Southern California Gas Company are currently being held.

A primary need for upward rate re-

vision lies in the increase in capital investment per customer. From 1944 through 1948 the Southern California Gas Company experienced an increase of 20 per cent in the number of customers, but capital investment jumped more than 41 per cent. During that period, in order to keep pace with growing population, over $67,000,000 was invested in new plants, pipelines, and other properties.

ANOTHER California utility with a prewar (1941) investment per meter of $172 found that during the three years, 1947-1949, a period of record meter growth, that added capital per added meter averaged $432. The cumulative investment per meter reached $219, a 26 per cent increase over the $174 registered in January, 1945. For this utility the current annual rate of increase in unit investment is about 8.5 per cent. Older facilities must be replaced at even greater price differential than that for new meters

From these typical experiences it can be concluded (1) that the California gas utility industry must expect to make large expenditures for new construction in order to maintain its service standard to a growing population; (2) that the average investment burden of this high-cost construction will not be leveled off by increased business resulting from the addition of new meters.

Another factor affecting California utility earnings is that of the severe drop in industrial gross and net revenues. Three conditions are responsible for this condition: (1) decreased requirements for gas by industrial consumers; (2) loss of industrial load to fuel oil sold at distress prices; (3) lowered rates for gas which are geared to the posted price of fuel oil.

Other basic costs which have advanced considerably over prewar levels are those of wages (up 80 to 89 per cent) and cost of gas at sources (up 52 to 96 per cent).

The general consensus is that, unless rate relief is granted, a curtailment in the standards of gas service will inevitably follow.

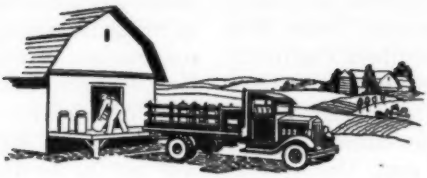
"UNEMPLOYMENT can be regarded correctly as a symptom of industrial and economic maladjustments. It constitutes a warning to labor to do a better job, just as falling sales and profits give warning to management to offer better values at lower prices.

"The way to cure such maladjustments is to correct the cause, rather than to rely exclusively upon government palliatives like public works.

"Were unemployment seen in its true light as a consequence of high costs and insufficient quality, it could be cured so much more easily and quickly. Were labor unions and management to work together harmoniously to bring down costs and step up quality, remarkable results could be achieved.

"Such a coöperative program . . . would bring sweeping improvements in this country's living standards."

—EDITORIAL STATEMENT,
The Journal of Commerce.



Spotlighting the Farmer's Pump

It's an irrigation pump in California, and with 50,000 farm power customers, PG&E went into total costs on many crops to show that pumping bills are reasonable.

By JAMES H. COLLINS*

RATHER a neat special job in customer relations was done last year, in a study of farm pumping costs, by the Pacific Gas and Electric Company, San Francisco.

This company has the world's largest agricultural power load in the world, because three-fourths of the irrigation water used in its northern and central California territory is pumped. It ran to 1.6 billion kilowatt hours in 1948, out of a total of 9 billion kilowatt hours for all customers, and brought in $17,250,000 in a total revenue of around $136,000,000. The 50,000 farm customers took more current than the 950,000 residential customers. It showed the largest gains in any single category of power sales.

Irrigation pumping by electricity was pioneered by this company and its predecessors, as a solution to lack of rainfall during the California growing season, and in dry years. Electric pumps have converted arid valleys and foothill lands into the nation's richest crop lands, and California leads all states in rural electrification.

Last year was a psychological moment for such a study.

Farm prices had begun to decrease, especially in some of the California specialty crops like fresh vegetables.

The farmer's costs showed no signs of coming down—he was paying just as much, sometimes more, for labor, machinery, fertilizer, insecticides, shipping crates, lithographed labels, and railroad transportation.

OTHER producers pass along higher costs, but the farmer takes what the market pays, sometimes even if there is a loss. He plants a crop of perishables, for instance, hoping that the market price will show some profit. His crop costs him a dollar per unit, and to harvest and ship will cost him another dollar. He can either plow under his dollar's worth of product and write that off, or harvest and ship for a $1.75 return, cutting his loss.

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All the farmer can pass is the buck!

In this dilemma, every item of costs is scrutinized, and California farmers have become wizards in the development of labor-saving equipment. On countless farms they contrive homemade equipment that does a job, making it from all sorts of machine parts, and many a commercial farm machine has been engineered from homemade devices that California farmers made for themselves.

Example: There are prunes or walnuts on the trees. Formerly they were picked or shaken down by hand. Rising costs led the growers to contrive mechanical shakers that bring the crop down into canvas trays surrounding the trees, or, in the case of nuts, they are shaken to the ground and picked up by vacuum-gathering devices.

That is how closely the California farmer studies costs; and in addition to the squeeze between falling prices and stationary expenses, California has had a series of dry years, the farmer has been using more electricity for pumping, and the situation created by higher electrical bills coming in on top of everything is safely left to the imagination.

PG&E decided that it would talk to its farm customers about their electric power bills.

The word "farmer" is a misfit in California. Often the word "rancher" fits no better. The state's soil industries are confusing in their diversity, and the methods in one line radically different from another — you cannot picture a prune farmer, a paprika farmer, and a flower seed farmer hanging over a line fence, discussing crops.

Farm costs are away out of line with those elsewhere.

THERE is a saying that the Corn Belt farmer, moving to California, and going into orange growing, seldom makes a success of it—farm advisers point out all the difficulties and try to steer him away from oranges into some other line, like alfalfa, or cattle on irrigated pasture.

The Middle West grows chiefly crops that gross less than $100 an acre, and the son-of-the-soil used to that kind of a budget simply cannot bring himself to put several hundred dollars the acre into fertilizer, spraying, dusting, pruning, and babying that is necessary before a single orange is picked. The best orange grower, usually, is a retired business or professional man, accustomed to putting in the dollars.

If oranges are fertilized with dollars, consider a crop like celery, about which the Corn Belt migrant probably never hears—they would be afraid to tell him about it.

The state has celery to ship every day in the year, and Los Angeles county by itself makes that statement.

A celery grower will spend up to $2,000 in planting, fertilizing, and tilling an acre of celery — hothouse seedling plants can cost him $400 or $500 alone. He will pay $1,000 for an acre of good celery land, or up to $150 a season's rent.

In other words, when California speaks of "farm" costs it uses figures such as are applied to the prices of farm lands elsewhere.

Thus, a utility company, proposing to call the farmer's attention to the moderate bills for pumping current that he has been getting lately, to show him that rates are reasonable, would have to talk the California farmer's

language, about his kind of crops and costs—even when he was doing some other kind of farming.

FIFTY thousand farmers doing fifty kinds of farming pointed to a sample. How many farmers in each category would make up a representative sample pointed to the selection of samples from the samples. In the end, the survey was made in two groups of field crops, and one group each of truck and fruit-and-nut crops.

Such an investigation could run all around outdoors if not well directed, and, besides costing a lot of money, could come up with general figures that had little value for the customers.

Also, cost analyses based on many farms brought in the difficulty of comparative figures, as the different farms would hardly have standard cost-keeping methods, and one purpose of this survey was to show farm customers the value of itemized crop costs. Such records are being kept by more and more farmers everywhere, but agriculture is still far from knowing its real costs, and profits, if any.

The commonest oversight in cost keeping is leaving out some important item—leaving out the rat hole through which profit escapes.

So for this study by PG&E accountants, going over books of farmers or farming companies with good records, a standard scheme of costs was set up, to get in everything:

Cost Items Included in Survey

Acreage in study.
Average yield per acre.
Average water use per acre, acre-feet.
Seed or planting stock.
Plowing and preparation.
Planting.
Cultivation.
Pruning and brush disposal.
Thinning, hoeing, and propping.
Fertilizer.
Dust and spray.
Irrigation labor.
Labor, housing, and transportation.
Harvest.
Hauling.
Processing and grading.
Containers.
Depreciation—Trees and vines.
" —Farm machinery.
" —Well, pump, and pipelines.
Land charges, rent, taxes, and interest.
Miscellaneous.
Irrigation power.

Total production cost.
Irrigation power per cent of total.
Gross return.

TOTAL production costs varied from less than $35 for growing an acre of ladino clover in irrigated pasture, to more than $600 for an acre of green table peas. For information, the irrigated pasture is a recent devel-

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opment in California, land planted to a half-dozen or more forage plants, chosen to provide an all-year succession of grazing, and regularly irrigated, in contrast to unirrigated pasture that can be grazed only during and shortly after rains.

A GOOD $64 question: What is the No. 1 California crop? Not one Californian in fifty can answer it. Not oranges, not tree nuts, not vegetables, or grain.

It is merely grass, alfalfa, the basic stuff we mostly live on anyway, made into beef, pork, wool, milk, eggs. It leads in acreage, and the state raises more than one-tenth the nation's total. Alfalfa costs on various acreages ranged from $93.75 to $125.93 per acre, differing with cost of land, yields, whether the crop was fed on the place or baled and sold for hay. But power for pumping ranged from 6.24 down to 4.27 per cent of total production costs, or $9.09 to $4 per acre per season.

Pumping current was among the lowest cost items.

Cost of electricity for other field crops ranged from $19.20 per acre for sugar beets, to $7.80 for cotton, $3.59 for potatoes — in percentages from 6.98 to as little as one per cent of total costs.

Sugar beets are thirsty, need a great deal of water, much of it pumped. But electricity is still a minor item, compared with labor costs for thinning, harvesting, and hauling to the refinery. This is a crop now being mechanized and improved in other ways, like cotton, with its picking machines and chemical weed killers.

Fruit, vegetable, and nut crops take even less electricity than field crops, ranging from $14.35 for an acre of raisin and wine grapes, down to $4.25 for pears; in percentages of total crop costs, from 2.95 to .97 per cent.

THESE are products in which fertilizer, labor in harvesting, hauling to canneries, grading and packing for fresh shipments, shipping containers, and other cost items far outshadow power bills.

On grapes, pumping costs are less than half the expense of dusting and spraying insecticides; on peaches, 6.5 per cent of the bill for packing boxes; on lettuce, 11.5 per cent of the cost of fertilizer.

Is it a good thing, in sending out bills for electricity, to know what is on the customer's mind? Pacific Gas and Electric thinks so, and what is on the mind of the California farmer raising lettuce gives a good average picture.

California and Arizona produce about 95 per cent of all the lettuce marketed in the United States.

They ship lettuce every day in the year, beginning with the crop from the Imperial valley, at its peak in January and February; then from central California running from April to November, with Arizona filling in March and December.

Until about a generation ago, lettuce was seasonal in eastern states, grown near by, and the American diet had not been enriched by salads. California discovered that head lettuce could be shipped to eastern markets, and, with its range of climate, built an all-year industry, which Arizona reinforced later by developing off-month production.

Speaking of Farm Costs

". . . when California speaks of 'farm' costs it uses figures such as are applied to the prices of farm lands elsewhere. Thus, a utility company, proposing to call the farmer's attention to the moderate bills for pumping current that he has been getting lately, to show him that rates are reasonable, would have to talk the California farmer's language, about his kind of crops and costs—even when he was doing some other kind of farming."

For many years, lettuce growers have been reducing their costs by mechanization and other devices. The farm machinery for planting and cultivation has been standardized in row widths so that each tool and truck follows in the same furrows, working several rows simultaneously. Harvesting machines are huge affairs with conveyor belts onto which the heads are placed as fast as cut. Speed in getting the lettuce under refrigeration is very important to market quality. Research is now being directed to germicidal washing waters that promise to reduce spoilage in transit. Thinning in the field has always been a major item of cost — now seedsmen come up with coated seed, pellets of minerals, including fertilizer, that contain only one seed, making it possible to plant at regularly spaced intervals by machine, doing away with thinning.

IN Imperial valley, wild ducks are a crop hazard—the birds come down to winter there, and are protected as game, with their own marshy feeding areas. A hundred-acre field of lettuce is very tempting to these winter visitors, and in an hour they can happily puddle and ruin it. So lettuce growers provide a fund to pay for airplane protection, the pilots herding the ducks away from crops, with the noise of the plane, and blank cartridges as needed.

Despite all these refinements in production, the lettuce grower's costs have risen. An acre of lettuce in the area covered by the PG&E survey runs up to $500 or $600 when put on refrigerator cars, and nearly half the production and packing cost is for crates. Transportation increases in rail rates are a present worry, because they make up the largest single item in getting the crop to market, and have

stimulated competition. Texas, Idaho, and Colorado being nearer the big consuming markets, and able to ship by truck, are entering the lettuce deal.

Last winter, Texas had a freeze that killed citrus trees, and, to get quick cash, citrus growers pulled out the dead trees and planted lettuce and other vegetables. Being more than a thousand miles nearer the eastern markets, they have obvious advantages.

And these are the things the utility customer may have on his mind that warrant a word from the company when his power bill is mailed!

Even when electric pumping is the cornerstone of his farming.

John Jacobs was born on an Indiana farm, moved to Arizona, for a time, bought vegetables for shipment, and then discovered a dry valley with underground water. He sunk wells 500 to 900 feet deep, installed electric pumps that give him 2,000 gallons per minute, and when farmers in irrigated valleys are being rationed on water, starts his pumps and irrigates 3,000 acres of vegetable and other crops. Jacobs' lettuce and carrots are harvested by Navajo Indians, for during the war, when labor was scarce, he persuaded these nomad sheepherders to come and live in an Indian village he built for them, and has found them excellent workers.

BESIDES demonstrating by cost comparisons that electric pumping bills are reasonable, the utility company has another purpose—to increase the efficiency of farm pumping.

These costs vary widely from customer to customer, according to the crop to be irrigated, the nature of the soil, the kind of pumping equipment used, its age, maintenance, the slope of the land, etc.

A curious big machine now seen on many California and Arizona places, especially where vegetables are grown, is the "land plane." Carpenter's plane, that is. Ten feet wide, thirty feet long, pulled by tractor, it smooths off the prepared soil so that the crop is evenly irrigated, no high or low spots, saving water and getting a 100 per cent stand.

SOME crops have shallow roots, others go deep, some need frequent irrigation, others can do with less. There is a tool called the soil auger, which farmers are always being urged to use, that bores down after irrigation and shows just how far moisture has penetrated for deep-rooted crops—not always as far down as the farmer thought who relied on judgment.

Well efficiency is another factor—well diameter, type, depth of water table, pumping lift, efficiency of pumping plant, its age, the way it is or is *not* kept up—these affect power bills, maybe only a little, can affect crop yields a lot. A large pump used for occasional short runs will generally be expensive, and a smaller one run for longer periods more economical.

With a million things to look after on a farm, orchard, or ranch, whatever runs is likely to be taken for granted. "The wheel that squeaks gets the oil," and pumps get attention when they break down. Common causes of pumping inefficiency found by PG&E field men are mechanical defects, neglect of lubrication, the use of too small or too large a pump, failure to compensate for falling water table in dry seasons.

The company provides a free pump-testing service for farm power customers, sending on request crews with instruments for determining efficiency in gallons per minute, horsepower requirements, and similar factors, to ascertain whether the customer is getting gallons for kilowatt hours.

THERE are various angles in this farm load, overlooked most of the time, but standing out like the traditional sore thumb when normal conditions are disturbed. As in dry years, when the farm pumping load becomes a problem in supply, and efficient use of current by the farmer is a "must." Educational work like these cost studies pays dividends to the farmers.

There are sales angles. Just now, the trend of agriculture is toward more grass, to produce more meat. In California that means irrigated pastures, and pumping. Also, this state's irrigation has lately shown a trend toward overhead sprinklers—lightweight pipes are set up to produce artificial rain for whole fields. All of which means that the farmer will make a choice of pumping power, and that he will have considered electricity because its case has been presented.

Altogether, a well-planned customer relations job that may furnish a pattern for other utility companies, and other kinds of utility customers.

"MONTH by month, year by year, people who have been considered, with justice, the mainstay of our society —the great middle class—have been rewarded for their prudence and self-reliance in steadily depreciating coin. These are the people who save for retirement, for the rainy day, for family security, as best they can with the resources at their disposal. They are the people who responded most generously to the calls for funds in the loan drives of the war emergency. They are the people who pay most of the taxes. They are the people who provide wise leadership in community life all through the country. It is a dangerous business, in a free society, to grind them down, take away their incentives, frustrate their efforts toward security.

"Another alarming feature is that a trend of this sort at some point precipitates violent reaction. Inequities and maladjustments like these, as they become worse and worse, create the seeds of depression. Booms have always ended in crash.

"Back of this inflationary trend are government policies of spending, lending, and guaranteeing which, more than any other single factor, have been responsible for our taut economy and for the spiraling of prices. The irony of it is that so much of this spending is pressed in the name of social welfare and liberalism. Yet those who see in such spending the menace to the security and freedom of the individual are classed as reactionary and insensible to humanitarian considerations."

EXCERPT *from monthly letter on Economic Conditions, Government Finance, published by National City Bank of New York.*

Company Construction to Save Taxes

An analysis by a Federal regulatory official of possible tax savings available to operating utilities through the use of operating personnel on company construction jobs.

By ROBERT E. STROMBERG*

THIS is not a sales talk for Tinkertoys, Erector Sets, or the like, whatever their possibilities in bringing out latent inventive genius. It is likewise not addressed to householders who wonder if they should tackle by themselves the job of modernizing the kitchen, or creating an extra room by finishing off the attic, or even assembling a television receiver at home. This little monograph goes to the question of the impact of the income tax laws on the decision whether or not business concerns in general, and public utilities in particular, should manufacture or construct their own plant and equipment which is to be capitalized in the accounts and which is expected to have a useful life of many years.

Utility regulatory agencies, in their rate case decisions, have discussed at length the problem of whether the recorded book costs of public utility systems which have manufactured and constructed their own plant and equipment should be accepted without adjustment downward for rate-making purposes. However, in cases where there have been no self-constructed plant and equipment involved, and they have been purchased by arm's-length bargaining, such as through competitive bidding, no question of costs has generally been raised.

The assumption has been made and accepted that the utility could not hope to do its own manufacturing and construction for any less costs than the bids of outside firms. It would appear that income taxes have not been specifically considered in these discussions and decisions. It is a fact, however, that income taxes are well worthy of consideration in this connection.

* Assistant chief accountant, Federal Communications Commission. See, also, "Pages with the Editors."

WHEN a utility buys a plant and equipment from a nonaffiliated vendor at a price high enough to provide a profit to the vendor it capitalizes income taxes of the vendor. Furthermore, it does this in advance of the time the profits which were responsible for those income taxes have been realized. This statement requires elaboration. It means that when plant and equipment is consumed in another such production is realized, in the fullest economic sense, unless and until the service life of such plant and equipment is consumed in another business operating at the least at the break-even point of profit and loss.

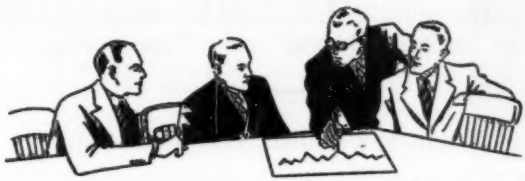
It is true, from the standpoint of individual business entity finance, that the nonaffiliated manufacturing seller made a profit on the sale, but in the larger financial sense this profit is nothing but a bookkeeping write-up pending the consumption of the subject of the sale in the service of society in a manner useful enough to the public receiving the service that the public was willing to, and did, pay enough for the service that the investment involved was recovered.

In contrast with the capitalization of income taxes involved in purchases from a nonaffiliate, a utility can manufacture and construct its own plant and equipment without ever capitalizing any income taxes. It will, of course, pay income taxes on the profits from its own manufacturing and construction, but these taxes will be paid only as the profits are finally realized in the consumption of the manufactured and constructed product.

The mechanics of the creation of these taxable profits are that nontaxable interest during construction will be capitalized and will be properly allowable in the utility rate base and for depreciation expense for rate-making purposes, but this interest during construction will not be allowable for depreciation expense taken on the income tax return. The result will be that the profits from the utility's own manufacturing and construction, recorded in the accounts as interest during construction, will be taxable income spread over the life of the property as the depreciation is earned and taken.

ALL costs except income taxes being equal, the self-construction method results in a lower utility rate base and lower depreciation expense for rate-making purposes than the method of purchasing from nonaffiliates to the extent of the income taxes capitalized under the latter method. It goes without saying, the lower the utility rate base, and depreciation expense, the lower the rates for service.

The proposition stated in the foregoing paragraphs may be better understood with an illustrative example. Suppose, on the basis of purchases from nonaffiliates, that a utility has a $20,000,000 plant, half depreciated, and being depreciated 5 per cent annually. The reasonable cost before income taxes and net profit to the nonaffiliates on the $20,000,000 is $19,000,000, the difference of $1,000,000 then consisting of $380,000 income taxes and $620,000 net profit. The utility could manufacture and construct its own plant at the same cost as the nonaffiliates. Assume 6.2 per cent rate of return for the utility in its utility operations and that the utility is financed wholly by equity securities. A tabula-



	Purchase From Nonaffiliates	*Self-Construction*
1. Book costs	$20,000,000	$19,620,000
2. Rate base (50% of item 1)	10,000,000	9,810,000
3. Depreciation expense for rate making (5% of item 1)	1,000,000	981,000
4. Depreciation expense for income taxes	1,000,000	950,000*
5. Income taxes at 38%	380,000	384,560**
6. Return (6.2% of item 2)	620,000	608,220
7. Revenue requirements (3+5+6)	2,000,000	1,973,780

* Five per cent of item 1 excluding $620,000 nontaxable interest during construction.
** Thirty-eight per cent of the amount ($981,000) required to provide 6.2 per cent return after income taxes on the rate base (item 2) plus 38 per cent of the $31,000 depreciation expense allowable for rate making but not for income taxes.

tion of these assumed facts is shown above.

ITEM 7 in the tabulation above represents, of course, only that part of the revenue requirement for 6.2 per cent return which varies according to whether the plant is purchased from independent suppliers or is self-constructed. The saving in revenue requirement above may appear insignificant, but these figures are only to illustrate the principle. The point is that there is always a saving in doing one's own construction arising out of the income tax factor in costs.

A utility franchise might forbid manufacturing activities or there might be other compelling reasons why a utility would not do its own work in this field. It might in such a case do this work through a wholly owned subsidiary. This would call for a consolidated income tax return in order to achieve the noncapitalization of income taxes, but the income tax rate would be 40 per cent instead of 38 per cent so that it might not in every instance pay to file a consolidated return. Thus it would become impossible to make the savings.

Another possible corporate setup is for one holding company to own the capital stock of both a manufacturing subsidiary and an operating subsidiary. Here also it would depend upon circumstances in the individual case whether a consolidated return should be filed or not. Generally it would seem that the consolidated return should be used because the savings in taxes payable on dividends received by the parent from its subsidiaries would be greater than the penalty of paying the higher tax rate in the consolidated return.

It should be noted that the principle developed above is not confined in its application to public utilities. It is equally applicable in the industrial field. It could be most readily utilized by large corporations so it is another cost advantage that "big" business has over "little" business.

Steps to Combat Nationalization

"WHAT *can we do about it [nationalization]? There are at least four groups of our population the members of which can do and have a duty to do something.*

"*[Something can be done by] . . . the agencies of the government. Here I include all agencies and all governmental activities and not simply those in the field of transportation, for the trend of the past has its dangers for all industry, commerce, and agriculture. I know that our servants on the government payroll, in the main, sincerely believe in their jobs. Aside from the inherent mania for expansion of government powers, they are able and conscientious. I know, too, that it is irksome to be prevented from doing something one is convinced should be done. Finally, I know that, in view of these things, I am urging upon them a veritable revolution in attitude when I say that they should meticulously observe the limits of the powers granted them by Congress. It would be far better for our Americanism if those we employ to do the necessary work of government would spend more time in doing just what they are hired to do and less in mapping new areas for the exercise of regulatory powers.*

"*[Then] . . . there is the Congress itself which can help against the recurrent threat of nationalization. It too should adopt a point of view which to me seems perhaps a little revolutionary but certainly necessary. It should view every effort toward strengthening the power or broadening the jurisdiction of any governmental agency with an extremely jaundiced eye. This is particularly vital in the case of transportation where . . . we are necessarily half-slave and half-free. Perhaps we shall some day regard a Congress as the best in history if it should adjourn with a record of having adopted no new legislation.*

"*Further, Congress should always remember that when it starts some regulatory mechanism it must not then feel that the job is done and go off and let the thing run of itself. I do not suggest that Congress should make any specific decisions on matters assigned to departments or independent agencies, but it should regularly survey the results of the laws it establishes and it should be severe in its treatment of any agencies which step beyond the limits which it has set for them. The courts may interpret the intent of Congress, but only Congress iself can actually state its meaning.*"

—ANDREW H. BROWN,
Transportation commissioner,
Cleveland Chamber of Commerce.

Washington and the Utilities

Plenty of Washington Headaches For the Gas Industry

THE natural gas industry went into the month of February with a number of unsolved problems cluttering up the Washington scene. These could be grouped roughly into four categories:

1. The revived threat of a "fuel czar."
2. The unsolved question of FPC jurisdiction over independent producers.
3. Unsolved problems on bills in Congress to exempt both producers and distributors from FPC control.
4. The proposal still hanging in the air to *increase* FPC jurisdiction to the extent of giving it control over natural gas securities.

Add to this the financial worries which stem from President Truman's demand that Congress cut out oil and other mining depletion exemptions for purposes of taxation, and one can readily see that the gas industry faces some pretty heavy going in the nation's capital in the months ahead.

The idea of the "fuel czar" is an implied rather than an actual threat. It stems from the long-expected invitation by Interior Secretary Chapman to the National Petroleum Council for investigating oil and gas relations. Chapman was obviously delighted that the original idea of the proposal came from a source within the oil industry. At the same time he surprised a good many people by proposing a parallel study on solid fuels by the National Bituminous Coal Advisory Committee. The outcome is highly uncertain. But it is obvious that the Interior Department is willing to go ahead with this investigation even if the National Petroleum Council turns thumbs down on the invitation.

THE original idea came from some oil industry members who thought it might help to prevent an unduly rapid expansion of natural gas into oil marketing territory. But now there is the fear that the council has a bear by the tail and that the whole thing might shape up into the possibility of a peacetime revival of the old wartime fuel administrator's setup under the Secretary of Interior. Natural gas men likewise are concerned over the possibility of an Interior-NPC report which would suggest interfering with free fuel competition between oil and gas and possibly coal.

One thing is certain and that is Secretary Chapman was not understating his position when he said "I welcome the proposal." It is known that he is prepared to assign some top-level department economist as "coördinator," rather than leave the participation in the hands of the regular oil and gas division of Interior. The whole thing might shake down into testimony before the House Interstate and Foreign Commerce Subcommittee on Petroleum. This would be done through a bill (HR 6047) introduced last year by Representative Harris (Democrat, Arkansas) to set up a commission on oil and gas policy.

At its January meeting, NPC shunted off the Chapman "invitation" to an agenda committee to study until April. It received another committee report opposing the Harris Bill.

On the jurisdictional front, the FPC's position on whether or not to take control over independent producers is still up in the air as the result of the collapse

of the Delhi Oil Corporation test case. This was the case involving the proposed sale by an intrastate producer of a wholesale supply to an independent pipe-line company. At the last minute, when it seemed that FPC had to decide one way or the other, the pipe-line company—El Paso Natural Gas Company—bought out the producing properties. This takes the FPC off the spot temporarily.

In Congress, the jurisdictional bills are pretty much snarled up. The House-approved Harris Bill (HR 1758) to exempt independent producers from FPC control is marking time, waiting for the Senate to decide whether it will take up its own committee-approved Kerr Bill (S 1498) or substitute the very similar Harris Bill.

BUT now sponsors of bills to exempt intrastate distributors, so as to get around the U. S. Supreme Court decision in the East Ohio Gas Case, are dickering on the proposition of combining both exemption proposals (*i. e.*, producers as well as distributors). The producers' reaction to this has been negative because they think it would destroy all chance of legislation this year—especially making a White House veto almost inevitable.

Over on the House side a subcommittee of the Interstate and Foreign Commerce Committee is slated to hold early hearings on the bill by Chairman Crosser (Democrat, Ohio). This bill (HR 5306) provides for FPC regulation of security issues by natural gas companies. It may be that hearings on this bill will develop testimony on the proposed legislation to by-pass the East Ohio Gas decision. Hearings were to start February 7th.

Excise Tax Relief

IN his tax message to Congress, President Truman admitted that some of the wartime excise taxes are "depressing" certain lines of business and for that reason should be reduced. He expressed the belief that reductions are "most urgently" needed in the excise taxes on transportation of persons and things, long-distance telephone and telegraph communications, but made no reference to the excise levies in the field of local communications services, which produce nearly half the telephone excise tax revenue of nearly a half-billion.

Tying a string to his recommendation that these taxes be reduced, Mr. Truman said he made them only to the extent that the resulting loss in revenue is replaced from closing "loopholes" in present tax laws, and the raising of corporate, estate, and gift taxes sufficient to bring in around $1.5 billion of new revenue.

The natural gas and petroleum industries are enjoying tax concessions that are a rank injustice to the rest of the population, according to the President's reasoning. He declared that he knew of no loophole in the tax laws "so inequitable as the excessive exemptions now enjoyed by the oil and mining interests." Although he did not mention natural gas in the text of his address, the President is doubtless aware that depletion exemptions are allowed producers of natural gas.

OTHER tax loopholes described by Mr. Truman included exemptions enjoyed by educational and charitable organizations. He said there are glaring instances of abuse in these categories—instances where they have been used to gain competitive advantage over private enterprise through "the conduct of business and industrial operations" in no way related to educational activities. However, he made no reference to the biggest loophole of all—the exemption of coöperative ventures which are also directly competitive with private enterprise.

Although the President did not use the word "veto" in his tax message or indirectly threaten rejection of a tax bill not in conformity with his recommendations, through his Capitol Hill leaders he made it clear that any excise tax reductions or repeal, not offset by revenue from some other source, would not get his signature.

Meanwhile, there is growing belief in Congress and among close observers of

the national scene that tax revision at this session will be limited to reduction of excise taxes and that a presidential veto can and will be overridden. Senator Walter F. George (Democrat, Georgia), chairman of the Senate Finance Committee—a man whose word on fiscal matters carries great weight in both houses of Congress—has indicated that he will press for just such a program, certain that he can muster sufficient strength to carry the measure over the President's rejection.

St. Lawrence Project

THOUGHT by many observers to be a dead issue for the remainder of the second session of the 81st Congress, the St. Lawrence seaway and power project, for which the President asked a $4,000,000 appropriation in his budget message, will wind through at least the hearing stage before the House Public Works Committee. Reluctantly responding to White House pressure, Chairman Will Whittington (Democrat, Mississippi) ordered hearings which may be under way as this issue goes into the mails. However, there is little likelihood the Mississippian will let it be reported out this year. Definitely opposed to this type of development, Whittington carries considerable influence with the committee and there is no doubt that he can succeed in preventing a favorable committee report.

WRPC Ready for Business

THE newly created Water Resources Policy Commission held an organization meeting in Washington on January 14th and 15th and set up in business at the old State Department building across the street from the White House in Washington. Leland Olds, formerly of the FPC, stated informally that WRPC is giving much of its attention to HR 1770 to amend the Reclamation Project Act. Support for this was found in the statements by Chairman Peterson (Democrat, Florida) of the House Public Lands Committee that HR 1770 and other bills to amend the Reclamation Act would be delayed pending a comprehensive WRPC report on all current water and reclamation projects.

This raised the question whether WRPC might eventually emerge as a project adviser for the Interior Department. After all, the REA set the precedent of an agency created originally by executive order and later recreated by act of Congress. It may be that WRPC, created by executive order, will take over some of Interior's project planning if HR 1770 becomes law.

In any event, it is noteworthy that HR 1770 would give the Secretary of Interior power (now exercised by Congress) to authorize new projects—subject to appropriations—upon "findings" of feasibility, economic desirability, etc., along general outlines roughed out by WRPC Chairman M. L. Cooke in discussing the forthcoming work of his commission.

Federal Transit System

UNDER the terms of a resolution introduced by Representative Arthur G. Klein (Democrat, New York), Congress will delve into the desirability or undesirability of the government purchasing the capital city's surface transit system and presenting it to the District of Columbia for operation. Klein's resolution was prompted by the Capital Transit Company's petition for a combination of increased fares and reduction of operating schedules. In its petition to the public utilities commission, the transit company said they are necessary if it is to get a fair return.

A recent suggestion that Congress legislate certain tax concessions to the company met with a chilly reception on Capitol Hill, and was quickly followed by the Klein move.

In presenting his resolution, the New York Congressman said Gotham's city-owned transit system was operating "satisfactorily" on a 10-cent fare, but he failed to point out that it operates at a loss that has to be made up from tax revenues.

Exchange Calls And Gossip

Real Estate Transaction Announced

ANNOUNCEMENT of a $1,825,000 real estate transaction unusual in the public utility field, involving both the financing and construction of buildings at Long Beach, Santa Monica, and San Bernardino, California, was made in Los Angeles last month by Edwin M. Blakeslee, president, Associated Telephone Company, Ltd., and George W. Carter, contractor and developer.

Planned so as to effect a marked increase in services to telephone subscribers, the structures include a $650,000 revenue accounting center at Long Beach; a $875,000 western district headquarters office at Santa Monica; and a $300,000 maintenance plant in San Bernardino.

They are being built to telephone company specifications by the George W. Carter Company, specialists in one-control buy-build-lease package negotiations. The Carter organization's handling of these transactions, involving no capital outlay by the lessee, is a variation of the more common lease-back practice through which corporations can reduce or recover capital investments in properties they occupy.

Negotiations for 100 per cent financing of the Santa Monica structure through Continental Assurance Company, Chicago, and sale of the completed structure to that organization were handled through the Carter Company. The Long Beach building is being financed by Carter, who will sell it upon completion to Mutual Life Insurance Company of New York.

Tenancy by the telephone company will be on net leases of thirty years, with two 10-year renewal clauses at Long Beach; and forty years, with one 10-year renewal clause at Santa Monica.

This was believed to be the first time a public utility has ever signed a net-lease agreement anywhere in the United States and, in the case of the Santa Monica office, the first time an insurance company has completely financed the construction of a building.

Phone Strike Threat Growing

A NATIONAL telephone strike appeared inevitable on the set date of February 8th. The apparent haste to precipitate a national telephone strike, promoted by the leadership of the CIO Communications Workers of America, was somewhat puzzling. Only about 100,000 telephone workers—roughly one-third of CWA's claimed organized strength—were in a position to walk out on the deadline announced by CWA President Beirne. Most other members would still be under contract until March 1st. The union is evidently depending on strong picket lines to keep all of its members off the job — whether they have been called out on strike or not.

The AT&T has promised continued operation of the nation's telephone service, thereby seeming to clinch the strike threat. Federal mediators may try to gain postponement. But it is noteworthy that the union president was talking last week about the inevitability of a strike action before wage increase demands had even been specified. There was also the possibility that President Truman might invoke his "fact-finding board" pattern (as he did in the coal and steel strikes) to head off any real emergency without

using the Taft-Hartley procedure so odious to the labor unions. At least the CIO telephone workers would be more coöperative than John L. Lewis.

CWA feels it is in a better position to swing a strike this spring than it was in April, 1947, when the unsuccessful strike was broken, chiefly because of Bell system maintenance of local exchange service with dial equipment.

But this time union leaders say the walkout would include equipment and installation men as well as the lady operators. Again, CWA now has the benefit of powerful CIO coöperation (including pickets) which was not the case in 1947. Industry officials, however, believe that if wage bargaining should break down, and a strike is called, local dial service and a reduced toll service could be kept going by supervisory employees.

Public reaction to a national telephone strike is an unknown factor worrying CWA. With public resentment over the coal strike already building up pressure in Congress, a few union officials feel that a telephone strike might be just the extra pressure needed to have Congress pass legislation to make unions subject to antitrust laws. Senator A. Willis Robertson (Democrat, Virginia) has introduced such a measure (S 2912)—assured of full hearing by the Senate Judiciary Committee.

SOMETHING new may be added to strike techniques if the Communications Workers of America carry out the implied threats contained in a letter from CWA President Joseph W. Beirne to CIO President Phil Murray, seeking support of the latter should the telephone workers go on strike. Briefly, Beirne has threatened to tie up or impair automatic telephone systems through continuous dialing of numbers by union members "and their friends." He asked that all CIO unions coöperate with the CWA—"use the telephone as much as possible so that unattended equipment will develop mechanical trouble more speedily" than when the membership is there to maintain it. Replying, Murray pledged "full" coöperation. Beirne makes no reference to just what the union proposes to do to make certain that the public is not deprived of medical and other emergency services, frequently available only by telephone.

Fraught with genuine danger to the public welfare, the situation is one which could be prevented only by President Truman through injunction under the Taft-Hartley Act, a procedure many believe he has definitely pledged organized labor he will not use. There is nothing in the Federal Communications Act or the regulations of the Federal Communications Commission giving that body power to act, while the general counsel of the National Labor Relations Board is powerless to move in on the situation, unless one side or the other files charges of unfair labor practices.

Meanwhile, the threat has strengthened the hands of those in Congress who feel the actions of certain segments of organized labor should be brought within the purview of the antitrust act. Senator Robertson's measure which would amend the act of July 2, 1890, would cancel a labor union's exemptions under the Norris-La Guardia Act when its conduct is such as to unreasonably restrain trade, interfere with interstate commerce or services essential to the maintenance of the national economy, health, or safety, or "any substantial segment thereof." The Beirne threat, coupled with the present situation in the coal mining industry, may assure passage of the Robertson bill.

Rural Telephone Program

SHORTLY after this issue is in the reader's hands, Rural Electrification Administrator Claude R. Wickard is scheduled to deliver the first check under the rural telephone loan program. The event, attended by considerable fanfare and ceremony, will take place in Mr. Wickard's Washington office, but REA officials so far have declined to reveal the name of the recipient or where his operation is located. Approximately 100 completed formal applications from 32 states are on hand for the administrator's con-

sideration. Kansas is leading with eight, while Alabama applications total six. States from which formal applications have not been received are Arizona, Arkansas, California, Connecticut, Delaware, Idaho, Illinois, Maine, Maryland, Massachusetts, Missouri, Nevada, New Hampshire, New Jersey, Ohio, and Rhode Island.

Thirty-cent Television

THE feat of a young New Jersey electrician in constructing a television color adapter from 30 cents worth of cellophane and a discarded phonograph motor will in no way alter plans of the Federal Communications Commission to go slow in allotting channels for color TV broadcasts. The commission points out that although the homemade adapter is workable with a black and white receiver, after certain minor circuit changes, it is workable only for reception of color broadcasts originating with Columbia Broadcasting System. Chief concern of the commission, officials explained, is that allocation of color channels does not render useless the more than $30,000,000 worth of black and white sets now in users' hands. In the meantime, TV experts have pronounced the new gadget a "novelty" and have ventured the opinion that color commercial broadcasting is ten years in the future.

New FCC Legislation

COMMUNICATIONS Subcommittee Chairman George G. Sadowski (Democrat, Michigan), of the House Interstate and Foreign Commerce Committee, has initiated legislation (HR 6949) to render radio station licensees immune from any action in any local, state, or Federal court, based on the material contained in a political broadcast.

In addition, the measure would provide for the creation of an independent 5-member Frequency Control Board to deal with the allocation and assignment of radio frequencies. In connection with this feature, Representative Sadowski said present machinery is inadequate for proper assignment of frequencies, pointing out that the advent of television and increased use of short-wave frequencies in many private fields have created problems which should be assigned to a specialized group such as proposed.

Telephone Loan Rule Intact

ENTRANCE into the field of financing of rural telephone development by the Federal government does not deprive the Nebraska State Railway Commission of its authority over loans. That was the holding last month of Attorney General James H. Anderson in reply to an inquiry from Chairman Walter F. Roberts of the commission.

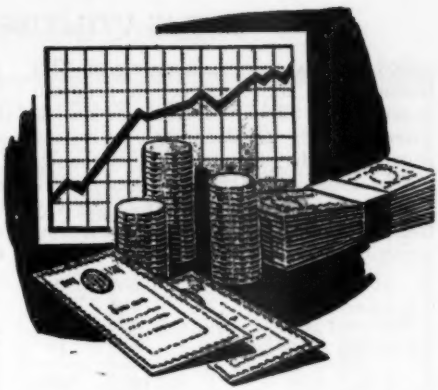
Where the loans are for more than twelve months and where those are sought by companies selling their service to the general public, commission approval is still required. The attorney general said that the Federal law specifically provides also that companies must get certificates of convenience and necessity before engaging in business.

Anderson said that the regulatory power of the states is fully protected. A supreme court holding states that mutual companies are exempt from regulation where they are organized and operated to serve only their own members.

Lack of Technicians Slows REA Rural Phone Program

RURAL ELECTRIFICATION ADMINISTRATION'S rural telephone loan program is in danger of grinding almost to a standstill for lack of qualified telephone engineers and technicians. By February 1st, less than two score had been employed for a staff that could use 200 or more skilled men now. Drawback to more rapid recruitment, according to REA officials, is government pay scales, which are lower than those prevailing in private industry. With more than 125 loan applications on hand, and 10 to 15 new ones coming in daily, REA's telephone loan staff finds itself falling behind.

Financial News and Comment



By OWEN ELY

Analysis of Utility Financing In 1948-49

THE chart on page 241, which is based on figures compiled by Ebasco Services, Inc., shows that total utility financing of all kinds aggregated over $6 billion in 1948-49. The total amount, about $3 billion in each year, is "broken down" four ways in the chart: (1) by divisions of the industry, (2) by kinds of securities, (3) by the purpose of issuance, and (4) by the method of sale. Of course the $3 billion total does not reflect total construction since only $2.3 billion in 1949 represented "new money," and to this would have to be added depreciation and amortization cash, surplus earnings, temporary bank borrowings, etc.

In 1949, 64 per cent of the utility financing was done by electric utilities, 18 per cent by communications companies, 17 per cent by gas companies, and 1 per cent by other utilities. These figures compare with corresponding percentages in 1948 of 49 per cent, 31 per cent, 19 per cent, and 1 per cent. The table on page 240 shows the way in which the major divisions of the industry did their financing.

Regarding the purpose of financing, in 1949 new money accounted for 77 per cent, refunding 16 per cent, and divestments 7 per cent; in the previous year the percentages were 91, 7, and 2 per cent, respectively. The complete figures were made up as follows (millions of dollars):

	1949	*1948*
Refundings	$474	$211
Divestments	200	60
New Money:		
Long-term Debt	1,634	2,369
Preferred Stock	244	184
Common Stock	442	271
Total New Money	$2,320	$2,824

REGARDING methods of sale, private financing was 17 per cent of the total in 1949 and 18 per cent in 1948. Of the 1949 public sales, competitive bidding accounted for 52 per cent, negotiated sales 26 per cent, and straight sales to stockholders without underwriting 22 per cent. In 1948 competitive bidding accounted for 79 per cent of the total, negotiated sales 12 per cent, and straight sales to stockholders only 9 per cent. (Common stock offerings were smaller in that year.)

Surplus income for all electric utility companies in 1949 probably amounted to $200,000,000 and depreciation funds approximated $375,000,000. These figures

DEPARTMENT INDEX

added to new money financing of $1.4 billion make the construction program approximate $2 billion, about as anticipated. Adding $200,000,000 reinvested earnings to the amount of equity financing in 1949, and $150,000,000 in 1948, we have the following picture of the way the electric companies financed their construction:

	1949	*1948*
Long-term Debt	54%	69%
Preferred Stock	13	12
Common Stock Equity ...	33	19
	100%	100%

On the basis of the Ebasco figures, the electric industry did a larger proportion of equity financing than any other section of the utility industry in 1949. However, the figures for the telephone and telegraph companies apparently do not include the large amounts of equity money which were obtained through conversion of debentures, or sale of stock to employees under partial payment plans. Since March 1, 1948, when the conversion privilege became effective on the American Telephone and Telegraph debenture 2¾s of 1957, holders have converted $194,000,000 of these debentures into stock. The 3¼s due 1959 became convertible September 1, 1949, and about $166,000,000 have since been converted into common stock (of which over $10,000,000 occurred in one week recently).

THE amount of preferred stock financing appeared to be deficient in both years, based on the SEC 50-25-25 formula. But the ratio should probably approximate 55-15-30, to be closer to realities; the 55 per cent debt figure including 45 per cent mortgage bonds and 10 per cent debentures, part of which would be convertibles. On this basis preferred stock financing is not far out of line in both years. Such financing was aided in 1949 by a decline in bond yields.

In 1948 it was thought that the insurance companies would force the utilities to attach sinking or purchase funds to all their preferred stock offerings, but this assumption proved unfounded: Of the 45 issues sold publicly and 7 disposed of privately in 1949, only 6 had sinking funds. These issues accounted for only $20,000,000 of the $244,000,000 total, and over half the amount was accounted for by the $10,000,000 Tennessee Gas Transmission issue.

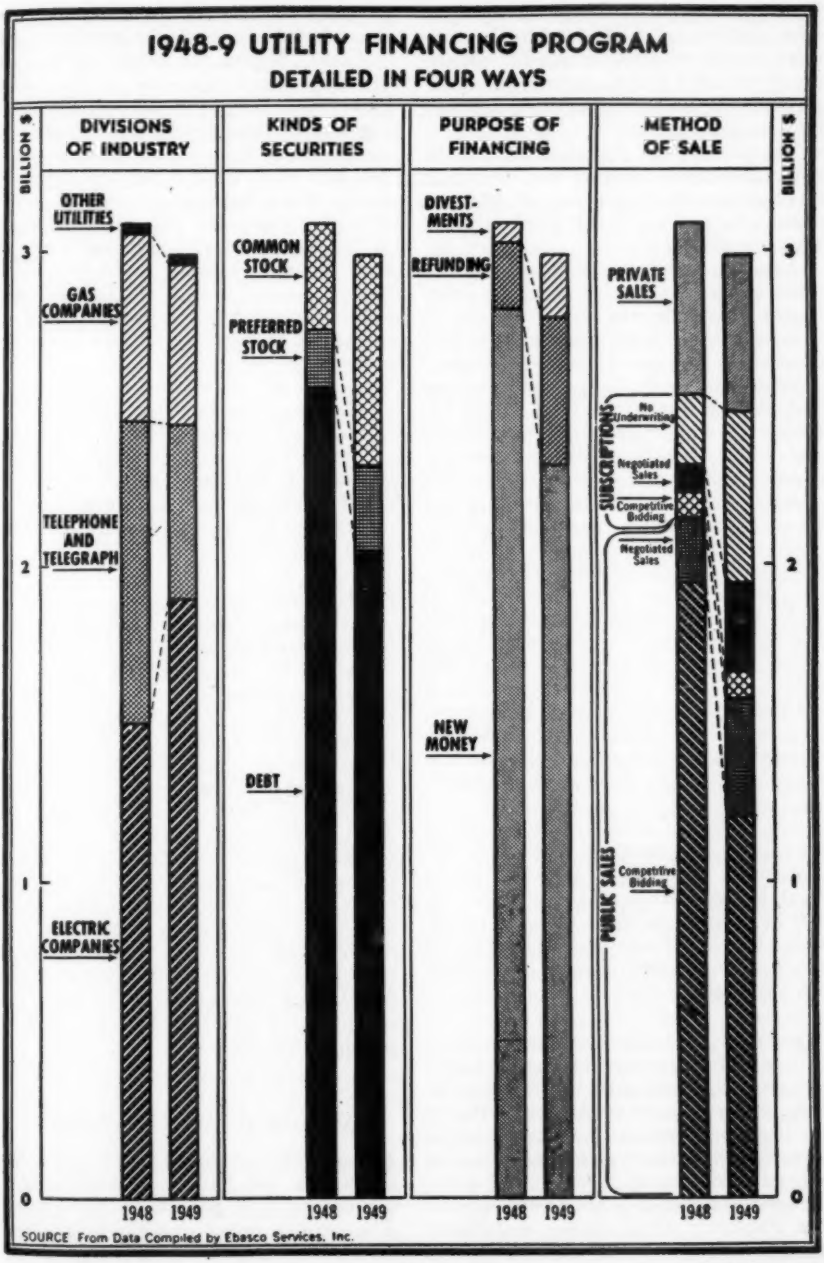
A number of convertible issues appeared in 1949, but because of the ease with which equity financing could be done the aggregate amount was small, outside of the big telephone issue. Convertible issues included the following:

Millions	
$5.7	Connecticut Light & Power Conv. Deb. 3s
3.2	Arkansas-Missouri Power Conv. Interim 6½% Notes
394.0	American Tel. & Tel. Conv. Deb. 3½s
9.8	Houston Lighting & Power Conv. Deb. 2¾s
1.5	Public Service of New Mexico Conv. 5½% Pfd.
2.0	California Elec. Power Conv. 5.6% Pfd.
1.0	San Jose Water Works Conv. 4½% Pfd.
2.4	Iowa Southern Utilities Conv. 5½% Pfd.
1.5	California Water Service 5/28% Pfd.
14.2	Public Ser. of Ind. Conv. 4.64% Pfd.

Sale of Pacific Power & Light

EARLY in February before the Securities and Exchange Commission, two syndicates of banking firms were contending as to who should be allowed to buy the common stock of Pacific Power

	1949			*1948*		
	Electric Cos.	*Tel. & Tel.*	*Gas Cos.*	*Electric Cos.*	*Tel. & Tel.*	*Gas Cos.*
Long-term Debt	$861	$451	$304	$982	$874	$490
Preferred Stock	210	8	22	167	9	3
Common Stock	329	50	63	120	86	65
Total	$1,400	$509	$389	$1,269	$969	$558


1948-9 UTILITY FINANCING PROGRAM
DETAILED IN FOUR WAYS
BILLION $
DIVISIONS OF INDUSTRY
OTHER UTILITIES
GAS COMPANIES
TELEPHONE AND TELEGRAPH
ELECTRIC COMPANIES
KINDS OF SECURITIES
COMMON STOCK
PREFERRED STOCK
DEBT
PURPOSE OF FINANCING
DIVEST-MENTS
REFUNDING
NEW MONEY
METHOD OF SALE
PRIVATE SALES
SUBSCRIPTIONS
No Underwriting
Negotiated Sales
Competitive Bidding
Negotiated Sales
PUBLIC SALES
Competitive Bidding
BILLION $
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SOURCE From Data Compiled by Ebasco Services, Inc.

& Light Company, Portland, Oregon. The reconvened SEC hearing to consider bids for the stock made the American Power & Light Company was interrupted by recesses, two of them followed by new proposals.

The proceedings also were featured by objections from counsel for the then favored purchaser, a group of 16 firms headed by A. C. Allyn & Company and Bear, Stearns & Co.

American plans were to dissolve by February 15th under terms of an order issued in 1942 by the SEC. It wants to dispose of the Pacific stock by this date in order to gain certain tax advantages.

When the hearing opened on February 2nd, American told the SEC it had before it two bids: One for $16,125,000 cash from Allyn-Bear, Stearns, and one from Allen-Blyth for $15,525,000 cash plus two-thirds of all net profits above 10 per cent of the purchase price.

Howard L. Aller, president of American, made it clear that the holding company preferred the offer for $16,125,000 cash. In the contract covering this bid, however, there was some question whether the purchaser would sell or distribute the stock or whether it would sell the Pacific properties. American's parent, Electric Bond and Share Company, previously opposed this group's offer for fear the properties would end in public ownership.

Allen-Blyth's counsel volunteered to guarantee American at least $200,000 more than the $16,125,000 bid by its rival. Later, it proposed paying $16,325,000 in cash immediately, plus the profits under the earlier formula and to offer the stock publicly within a week or ten days after the sale is made.

PREVIOUSLY a rather interesting situation had developed with respect to the pending sale of the common stock of Pacific Power & Light by American Power & Light Company. For tax reasons American has been trying to expedite the sale of this property before carrying out its own dissolution plan, tentatively set for February 15th. Early in January American signed a contract with a group of bankers headed by B. J. Van Ingen & Co., which had apparently been arranged by Guy C. Myers. Mr. Myers some years ago engineered the sale of Nebraska Power Company by American Power & Light to various public power agencies in the state of Nebraska—which agencies had been hastily thrown together, and have not functioned very well in intervening years. Mr. Myers then turned to the Northwest, and arranged a sale of Puget Sound Power & Light to a PUD for approximately $130,000,000, the sale to be financed through the offering of an equivalent amount of tax-free bonds by a group headed by Halsey, Stuart & Co. This deal fell through about four years ago because of doubtful legality, and there has been a continuing struggle ever since to obtain improved legal authority for the sale; a new state law was enacted about a year ago and its legality may be determined by the state supreme court some time this summer.

THE SEC, in its opinion released to the press January 27th, raised the issue of competitive bidding. American in asking for an exemption had urged special circumstances: power shortage in the Northwest, complex power interchange contracts, the possibility that firm Federal power might be cut off all together, and possible creation of a Columbia Valley Administration similar to TVA. President Aller of American doubted whether the company would proceed on a competitive bidding basis, and Chairman Calder of Electric Bond and Share also opposed competitive bidding because the resulting delays would prevent tax savings from being realized. Mr. Calder favored the Allen offer because the full $15,000,000 cash would be payable immediately.

Standard Gas & Electric

STANDARD GAS & ELECTRIC COMPANY is now the largest remaining holding company in process of dissolution. The various dissolution plans proposed in the past have become completely out-

moded, but it is expected that the outline of a final plan may soon be filed with the SEC. The management indicated sometime ago that the delay reflected the uncertainties with respect to plans submitted to the SEC for recapitalization of the two major subholding companies (Philadelphia Company and Pittsburgh Railways). The Pittsburgh Railways plan was approved by the SEC utility staff on December 20th. The earlier plan for recapitalizing Philadelphia Company was modified recently, and may be subject to delay, but the litigation in the courts over the need for dissolving the company has been settled in the commission's favor.

Glore, Forgan & Co. some weeks ago issued a 13-page study of Standard Gas. It first estimated the value of the portfolio at approximately $127,000,000 after allowance for the remaining small bank loan (about $2,250,000). After deducting the claims of the $7 and $6 prior preference stocks (par and arrears) this left a portfolio value of $33,500,000 for the $4 second preferred stock or about $45 per share compared with the then prevailing price of 39.

However, the common stock of Philadelphia Company, the major system asset, was then selling at 16, and Glore, Forgan stated "we believe that a material increase over the quoted values of Philadelphia Company common will eventually be developed in the liquidation of this subholding company." Such an increase in value actually took place marketwise over the next few weeks, as Philadelphia Company recently sold at a high of 19¾, almost equaling the 1946 figure of 20, while Standard Gas $4 preferred sold up to $56. However, Glore, Forgan in its story had predicted the possibility of values ranging from $78 to $99 for the second preferred. These estimates are very high, and it may be of interest to discuss them.

THE Standard Gas portfolio contains only four major items—Louisville Gas & Electric, Oklahoma Gas & Electric, Philadelphia Company, and Wisconsin Public Service. All but the last issue have quoted markets. Glore, Forgan estimated the market value of Wisconsin Public Service at twelve times the current earnings, or $24,000,000. In its appraisal of future values for Philadelphia Company, it proceeded as follows: The stock of Pittsburgh Railways to be received in reorganization under the present plan was assigned a nominal value of $4,000,000, this figure also including all the miscellaneous assets of Philadelphia. With reference to Duquesne Light, it was estimated that the company would require $60,000,000 new capital or about $20,000,000 annually over the next three years. However, it was assumed that no equity financing would be necessary until 1952, at which time the company would be in the hands of the public. Hence the capital structure at the end of 1950, including the changes incidental to the latest recapitalization plan of Philadelphia Company, would be as follows:

	Millions	*Per Cent*
Funded Debt	$112	55%
5% Preferred Stock	28	19
4¼% Preferred ($50 par)	10	
Common Stock Equity ..	53	26
Total	$203	100%

Glore, Forgan then analyzed the outlook for Duquesne as follows:

> Because of the substantial change being made in the physical, as well as financial, characteristics of Duquesne Light it is difficult to evaluate this equity. For some years Duquesne has had an inadequate supply of its own power and has purchased substantial amounts of its requirements from others at high rates. The company has embarked on a program to remedy this situation and in the years 1949-1952 expects to install 350,000 kilowatts of new generating capacity of which 160,000 kilowatts will be installed in 1949 and 1950. The benefits of this program will be substantial and should result in increased gross and net earnings. The latter will be particularly affected because of the betterment of the operating ratio resulting from the elimination of high-cost power. . . .
>
> We believe it probable that the dis-

solution of the Standard Gas & Electric Company will be accomplished by early 1951 and one must therefore look to the earnings of the Duquesne Light Company for the calendar year 1950 to determine a value. If we use the projections of the company for that year, we find that net income, adjusting for the additional debt and preferred but allowing the usual credit for interest charged to construction, would be about $10,000,000. The question now arises as to what price-earnings ratio should be used to evaluate these earnings. The most closely comparable company to Duquesne Light is West Penn Power Company, which serves a somewhat similar area, and has about the same amount of industrial power sales. At the present time West Penn Power common is selling at almost 15 times current earnings. The average price earnings ratio for all utility common stocks is about 11 times, with the high-grade issues selling at around 15 times and the lower-grade issues at around 8½-9 times. One might argue that because of the high industrial power load (51 per cent of revenues) and the cyclical nature of the primary industry in the area served, Duquesne Light Company common should sell at a lower ratio than other issues of generally similar investment status. However, there exists a very definite tax advantage for Pennsylvania residents in holding stock of Pennsylvania utility companies which should be reflected in the price of this stock. After considering all factors we feel that a price-earnings ratio of 13 times, giving a total value of $130,000,000, is a reasonable one for Duquesne Light common.

EQUITABLE GAS COMPANY has shown substantial gains due to lifting of restrictions on additional installations of house-heating units, and an increased supply of natural gas. Net income for the common stock in the twelve months ended August 31st, after adjustment to a *pro forma* basis under the plan, would approximate $3,500,000. Glore, Forgan felt that the stock could be appraised at 9½ times earnings, or $32,500,000. This made the total appraised value of the Philadelphia Company portfolio $166,500,000. Against this there are priorities of $50,000,000, leaving $116,000,000 as the net equity for the common, of which 97 per cent or $113,000,000 belongs to Standard Gas. Substituting this figure for the value based on a market price of 16 would raise the total value of the Standard Gas portfolio to $159,000,000 against the previously used figure of $127,000,000.

Glore, Forgan then concluded:

> When a holding company dissolves through the distribution of its assets to its security holders, the SEC must approve the allocation of such assets. We know of no case in which this procedure was followed where a prior preferred stock claim received 100 per cent in the then prevailing market values of new securities. A recent case in point was Electric Power & Light which had prior preferred, second preferred, and common stock issues outstanding, with assets worth substantially more than the prior preferred claim. The Electric Power & Light prior preferred received about 95 per cent in the dissolution. Since it is not known what the allocation will be for Standard Gas & Electric, we are setting up a table which is based on payments of 95 per cent, 90 per cent, and 85 per cent on the prior preferred claim. As the common stock may also receive a small allocation we have assigned to the common varying amounts of 3 per cent, 5 per cent, and 7 per cent of the total amount available for distribution.

ON the basis of these assumptions, Glore, Forgan then arrived at estimates of potential break-up values for the $4 preferred ranging from $78.30 to $99. But in our opinion the assumption that the claim of the prior preference will not be fully satisfied is perhaps not warranted. In the New England Public Serv-

ice Case the prior preference stocks were retired at par and arrears, and in addition there is a possible claim for the call premiums, which on one issue amounts to as much as $20 plus interest. (The stubs for this claim are currently quoted 19 bid.)

CURRENT UTILITY STATISTICS AND RATIOS

	Unit Used	Amount Latest Month	Amount Latest 12 Mos.	Per Cent Increase Latest Month	Per Cent Increase Latest 12 Mos.
Operating Statistics (November)					
Output KWH—Total	Bill. KWH	24.3	290.4	1%	4%
Hydro Generated	"	6.9	—	4	—
Fuel Generated	"	17.4	—	—	—
Capacity	Mill. KW	61.6	—	11	—
Customers, no.	Mill.	42.7	—	5	—
Fuel Use: Coal	Mill. tons	6.7	—	D22	—
Gas	Mill. MCF	46.9	—	19	—
Oil	Mill. bbls.	7.3	—	105	—
Coal Stocks	Mill. tons	22.8	—	D17	—
Sales, Revenues, and Rates (October)					
KWH Sales—Residential	Bill. KWH	3.6	44	13	13
Commercial	"	3.0	36	8	9
Industrial	"	8.2	104	D11	D1
Total, incl. misc.	"	20.8	256	D3	3
Revenues—Residential	Mill. $	111	1,326	11	11
Commercial	"	86	1,012	6	9
Industrial	"	98	1,213	D7	3
Total, incl. misc. sales	"	358	4,302	1	7
Revenues and Income (October)					
Elec. Rev., incl. misc. rev.	"	362	4,353	1	7
Misc. Income	"	5	128	29	15
Expenditures (October)					
Fuel	"	59	721	D18	D5
Labor	"	72	850	5	7
Misc. Expenses	"	64	752	D1	4
Depreciation	"	32	377	5	6
Taxes	"	63	780	11	13
Interest	"	21	238	12	15
Amortization, etc.	"	1	21	D35	D35
Earnings and Dividends (October)					
Net Income	"	55	742	15	16
Preferred Div. (est.)	"	9	105	4	2
Bal. for Common Stock (est.)	"	46	637	18	19
Common Dividends (est.)	"	38	465	2	9
Balance to Surplus (est.)	"	8	172	700	142
Utility Financing (December)*					
Bonds	"	128	2,037**	D70	D21
Stocks	"	134	748**	219	89
Total	"	262	2,785**	D45	D6
Life Insurance Investments (January 1st-January 21st)					
Utility Bonds	"	—	16	—	D15
Utility Stocks	"	—	5	—	1,357
Total	"	—	21	—	10
% of All Investments	"	—	8%	—	17

D—Decrease. *Data for all utilities (electric, gas, telephone, etc.), including refunding issues. **Twelve months ended December 31st.

RECENT FINANCIAL DATA ON GAS COMPANY STOCKS

		1/25/50 Price About	Indicated Dividend Rate	Approx. Yield	12 Mos. Ended	Share Earnings Cur. Period	Share Earnings Prev. Period	Share Earnings % Increase	Price-Earnings Ratio
Natural Gas—Retail									
C	Arkansas Natural Gas	11	$ .60	5.5%	Dec.	$1.44	$ .80	80	7.6
O	Atlanta Gas Light	21	1.20	5.7	Sept.	1.71	1.79	D5	12.3
S	Columbia Gas System	12½	.75	6.0	Sept.	.88**	.98**	D10	14.2
C	Consol. Gas Util.	13	.75	5.8	July	1.72	1.55	11	7.6
S	Consol. Nat. Gas	44	2.00	4.5	Sept.	3.51	3.75	D6	12.5
O	Houston Nat. Gas	15	.80	5.3	July	1.45	1.42	2	10.3
O	Indiana Gas & Water	20	1.20	6.0	Nov.	1.73	1.38	25	11.6
O	Kansas-Neb. Nat. Gas	17	1.00	5.9	Dec.	1.70	1.36	25	10.0
*S	Laclede Gas Light	7	.20	2.9	Sept.	.84	—	—	8.3
C	Lone Star Gas	26	1.20	4.6	Sept.	1.74	2.23	D22	14.9
O	Minneapolis Gas	17	1.00	5.9	Dec.	1.03	1.10	D6	16.5
O	Mission Oil	40	2.20	5.5	Dec.	2.05	2.04	—	19.5
O	Mobile Gas Service	25	1.50	6.0	Sept.	2.05	2.77	D26	12.2
S	Montana-Dakota Util.	13½	.80	5.9	Sept.	1.36	1.27	7	9.9
C	National Fuel Gas	11	.60	5.5	Sept.	.74	.69	7	14.9
C	Okla. Natural Gas	36	2.00	5.6	Nov.	3.21	3.45	D7	11.2
S	Pacific Lighting	54	3.00	5.6	Sept.	3.18**	4.55**	D30	17.0
C	Pacific Pub. Serv.	16	1.00	6.7	Dec.	2.43	1.91	28	6.2
*S	Peoples Gas L. & C.	133	6.00	4.5	Sept.	11.76	9.85	19	11.3
C	Rio Grande Valley	2	.12	6.0	Dec.	.20	.21	D5	10.0
O	Rockland Gas	32	1.70	5.3	Dec.	2.73	3.36	D19	11.7
O	Southern Union Gas	22	.80	3.6	June	1.53PF	—	—	14.4
O	Southwest Nat. Gas	5	.20	4.0	Sept.	.33	.31	7	15.2
S	United Gas	18	1.00	5.6	Sept.	1.30	1.78	D27	13.8
S	Washington Gas Light	25	1.50	6.0	Nov.	1.17**	1.89**	D38	21.4
	Averages			5.4%					12.6
Natural Gas—Wholesale and Pipeline									
S	American Natural Gas	31	$1.20	3.9%	Sept.	$1.71	$ .33	418	18.1
S	El Paso Nat. Gas	28	1.20	4.3	Nov.	1.83	2.35	D22	15.3
O	Interstate Nat. Gas	30	2.00	6.7	Dec.	2.03	1.71	19	14.8
O	Mississippi Riv. Fuel	37	2.00	5.4	Sept.	2.48	—	—	14.9
O	Mountain Fuel Supply	19	.60	3.2	Dec.	.91	.94	D3	20.9
S	Northern Nat. Gas	37	1.95	5.3	Sept.	2.74**	2.42**	13	13.5
S	Panhandle East. P.L.	38	2.00	5.3	Sept.	2.35	2.40	D2	16.2
O	Republic Natural Gas	40	1.00	2.5	June	3.03	2.72	11	13.2
S	Southern Nat. Gas	37	2.00	5.4	Sept.	3.00	2.76	9	12.3
O	Southern Production	10	—	—	June	.37	.28	32	27.0
O	Tenn. Gas Trans.	28	1.40&Stk.	5.0	Sept.	1.68**	1.06**	58	16.7
O	Texas East. Trans.	20	—	—	Sept.	1.50	.94	60	13.3
	Averages			4.7%					17.4
Manufactured Gas—Retail									
C	Bridgeport Gas	24	$1.40	5.8%	Dec.	$1.60	$1.69	D5	15.0
S	Brooklyn Union Gas	39	2.00	5.1	Dec.	4.32	1.21	257	9.0
O	Hartford Gas	35	2.00	5.7	Dec.	1.85	2.10	D12	18.9
O	Haverhill Gas Lt.	27	1.80	6.7	Nov.	2.31	1.43	62	11.7
O	Jacksonville Gas	30	1.40	4.7	Dec.	6.06	5.64	7	5.0
O	New Haven Gas Light	29	1.60	5.5	Dec.	1.76	1.77	—	16.5
O	Providence Gas	10	.60	6.0	Dec.	.73	.64	14	13.7
O	Seattle Gas	14	.35	2.5	June	1.01	.44	130	13.9
O	South Jersey Gas	10	—	—	Dec.	.41	.38	9	24.4
S	United Gas Improvement ..	27	1.30	4.8	Sept.	1.89	2.00	D6	14.3
	Averages			5.2%					14.2

D—Decrease or deficit. E—Estimated. C—Curb Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. *Company serves mixed gas but the trend in most cases is toward greater use of natural gas, hence we have dropped the separate classification. PF—*Pro forma.* ‡—Nine months ended September 30, 1949. **Earnings are based on present number of shares outstanding. †—Seven months ended July 31st.

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER COMPANIES

		1/25/50 Price About	Indicated Dividend Rate	Approx. Yield	Share Earnings 12 Mos. Ended	Cur. Period	Prev. Period	% Increase	Price-Earnings Ratio
Telephone Companies									
	Bell System								
S	Amer. Tel. & Tel.	149	$9.00	6.0%	Nov.	$9.35	—	—	15.9
O	Cinn. & Sub. Bell Tel.	74	4.50	6.1	Dec.	3.76	$3.85	D5	19.7
C	Mountain Sts. T. & T.	103	6.00	5.8	Sept.	6.04*	5.25*	15	17.1
C	New England Tel.	94	4.75	5.1	Dec.	7.19	4.59	57	13.1
S	Pacific Tel. & Tel.	105	7.00	6.7	Nov.	6.32*	7.10*	D11	16.6
O	So. New Eng. Tel.	32	1.60	5.0	Dec.	2.22	.94	136	14.4
	Averages			5.8%					16.1
	Independents								
C	Associated Tel. A	57	—	—	—	—	—	—	—
S	General Telephone	29	$2.00	6.9%	Sept.	$2.29	$2.28	—	12.7
C	Peninsular Tel.	47	2.50	5.3	Dec.	5.66	5.25	8	8.3
O	Rochester Tel.	13	.80	6.2	Dec.	.80	.47	70	16.3
Transit Companies									
O	Baltimore Transit	2	—	—	—	—	—	—	—
O	Chicago S.S. & S.B.	8	$1.00	12.5%	Dec.	$1.40	$1.38	1	5.7
O	Cinn. St. Ry.	5	.30	6.0	Dec.	.77	1.57	D51	6.5
O	Dallas Ry. & Term.	11	1.40	12.7	Dec.	2.27	3.39	D33	4.8
O	Duluth Sup. Trans.	9	1.00	11.0	Dec.	.44	2.75	D84	20.5
O	Kansas City Pub. Ser.	1	—	—	Aug.	.02	—	—	—
O	Los Angeles Transit	4½	.50	11.1	Dec.	.93	.87	7	4.8
S	Nat'l. City Lines	9	.50	5.6	Dec.	1.97	1.57	25	4.6
O	Phila. Transit	3	—	—	Dec.	1.03	.31	232	2.9
O	St. Louis Pub. Ser. A	5	—	—	Dec.	.70	.37	89	7.1
O	Syracuse Transit	18	2.00	11.1	Dec.	1.40	3.52	D60	12.9
S	Twin City Rapid Tr.	10	—	—	—	.39	.62	D37	25.6
O	United Transit	2½	—	—	Dec.	.13	.21	D38	19.2
	Averages			10.0%					10.4
Water Companies									
	Holding Companies								
S	Amer. Water Works	8	$ .60	7.5%	Sept.	$ .82	$ .74	11	9.8
O	N.Y. Water Service	90	2.00	2.2	Sept.	7.49	2.89	159	12.0
O	Northeastern Water	15	—	—	Sept.	1.37	.34	300	10.9
	Operating Companies								
O	Bridgeport Hydraulic	32	$1.60	5.0%	Dec.	$1.62*	$1.65*	D2	19.8
O	Calif. Water Serv.	30	2.00	6.7	Dec.	2.59	2.48	4	11.6
O	Elizabethtown Water	105	6.00	5.7	Dec.	6.89	7.33	D6	15.2
S	Hackensack Water	41	1.70	4.1	Dec.	2.79	3.08	D9	14.7
O	Indianapolis Water	17	.80	4.7	Dec.	1.42	1.19	19	12.0
O	Jamaica Water Supply	21	—	—	June	1.19	2.81	D58	17.6
O	Middlesex Water	57	3.00	5.3	Dec.	4.94	5.71	D13	11.5
O	New Haven Water	60	3.00	5.0	Dec.	3.61	3.34	8	16.6
O	Ohio Water Serv.	20	1.50	7.5	Sept.	2.00	2.31	D13	10.0
O	Phila. & Sub. Water	24	.80	3.3	Dec.	3.01	2.70	11	8.0
O	Plainfield Union Wt.	67	4.00	6.0	Dec.	5.02	4.74	6	13.3
O	San Jose Water	32	2.00	6.3	Dec.	2.78	2.78	—	11.5
O	Scranton-Spring Brook	12	.70	5.8	Sept.	.83	.87	D5	14.5
O	Southern Cal. Water	46	3.25	7.1	June	3.73	5.42	D31	12.3
O	Stamford Water	56	2.00	3.6	Dec.	2.21	2.27	D3	25.3
O	West Va. Water Serv.	17	1.00	5.9	Sept.	1.51	1.37	10	11.3
	Averages			5.5%					14.1

D—Deficit. E—Estimated. C—Curb Exchange. O—Over-counter or out-of-town exchange. S—New York Stock Exchange. *Based on present number of shares now outstanding.

What Others Think

Big Dam Criticism

CRITICISM of big dam development has appeared recently in a new quarter; namely, that of the wild-life and forestry preservationists. The American Forest Association announced that, beginning in the January issue of *American Forests,* the first in a series of three articles would appear disclosing the relationships of current watershed conservation planning with the engineering approach to watershed problems.

A release issued by the association, entitled "Are Big Dams Doomed?" says that piecemeal planning in watershed conservation must stop once and for all. Otherwise, some of these gigantic structures, built at prodigious costs to American taxpayers, will stand one day as useless monoliths, symbolizing an incredible faith in an engineering approach that failed to solve our watershed problems. Discussing the topic, authors Bernard Frank and Anthony Netboy declare the loss of millions of tons of soil washed from neglected watersheds to be one of the most serious problems faced.

The February issue of the forestry publication was slated to carry the second article in this series, dealing with the land-use type of solution to watershed problems. The question is raised whether it is a case of too little effort—and too late. The third article, to appear in March, is entitled "The Mirage of River Basin Development." This concluding article will note that while the Tennessee Valley Authority has made marked progress in new development it has not yet done the job that needs to be done on the watershed. The Missouri and Columbia valley watershed problems are also brought into this article and given a keen analysis.

The authors see the over-all answers to these problems as being one of stopping the practice of putting the cart before the horse in watershed conservation. They plead for the application of sound practices on the watersheds themselves, combined with practical engineering methods. They urge immediate action to remedy the damage caused by piecemeal planning.

FRANK has an 11-year TVA background to draw on in discussing these important problems. While with TVA he served as assistant chief of the Forest Service's division of forest influences. Netboy, likewise, has had years of experience with several government agencies, including a tour of duty as editor of *United States Forest Service.* Amplification of their findings and conclusions will be published sometime in 1950 in a book, *Water, Land, and People.*

The Forest Association points out that as a result of a long series of articles on America's growing watershed problems published in *American Forests,* the board of directors of the association has recently passed two resolutions in which it urged:

> (1) That Congress take no further action in the development of large river valley authorities until Federal responsibility for planning and development is definitely defined.
>
> (2) That a nonpartisan board of review be established by the President to review and consider major natural resources development plans, particularly as related to water developments.

EVIDENCE that some woodsmen have taken the cause to heart is seen in the recent move of New York hunters, fishermen, and hikers in vigorously opposing the Panther Mountain dam on

Moose river. Fifty representatives of rod and gun clubs, hiking clubs, garden clubs, nature groups, and conservation clubs urged a joint legislative committee on river regulation to consider the adoption of legislative checks on the autonomy of river regulating boards.

Under present New York state law such boards as the Black River Regulating District, the one in question, have no superior state agency which can reject plans approved by the board. The state water-power and control commission may only accept or modify proposals. The opponents of the dam in this connection contended that its primary purpose is the creation of private salable water power instead of flood control—the announced purpose.

—D. T. B.

Expanding Utilities

CONTINUED plant and distribution facility expansion of the business-managed utilities of the nation in the face of strong Federal power advances is making no small contribution to the aggressive campaign being staged by private enterprise as a whole in these changing economic times.

Typical of the expansion plans of utilities throughout the country are those recently announced by three southern utilities — Alabama Power Company, Kentucky Utilities Company, and Georgia Power Company. The Alabama Power directorate has approved a construction and expansion budget of $20,707,900 for 1950. Substantial amounts of the 1950 budget are allocated to projects already announced. Among them the 100,000-kilowatt addition to Gorgas No. 2 steam plant near Jasper, in Walker county, and the 40,000-kilowatt addition to Chickasaw steam plant near Mobile. These additions are expected to be in operation early in 1951, the sums allotted to these projects totaling nearly $11,000,000.

Additions to transmission lines and transmission substations will amount to $900,000, while $1,250,000 will be used for additional rural line extensions. This expenditure for rural development will bring to near completion Alabama Power Company's construction of backbone electric lines which will make electric service available to more than 95 per cent of the farmers within the company's service area. Additional buildings and equipment facilities will account for the remainder of the budget. Thomas W. Martin, chairman of the board, announced that since the end of World War II approximately $64,000,000 has been spent for expansions of and improvements to the generating, transmission, and distribution facilities of Alabama Power Company.

KENTUCKY UTILITIES COMPANY has announced a new 3-point program which is designed to meet the anticipated power needs of Kentucky customers and to reduce rates to the nineteen rural co-ops the company now serves at wholesale.

The program includes:

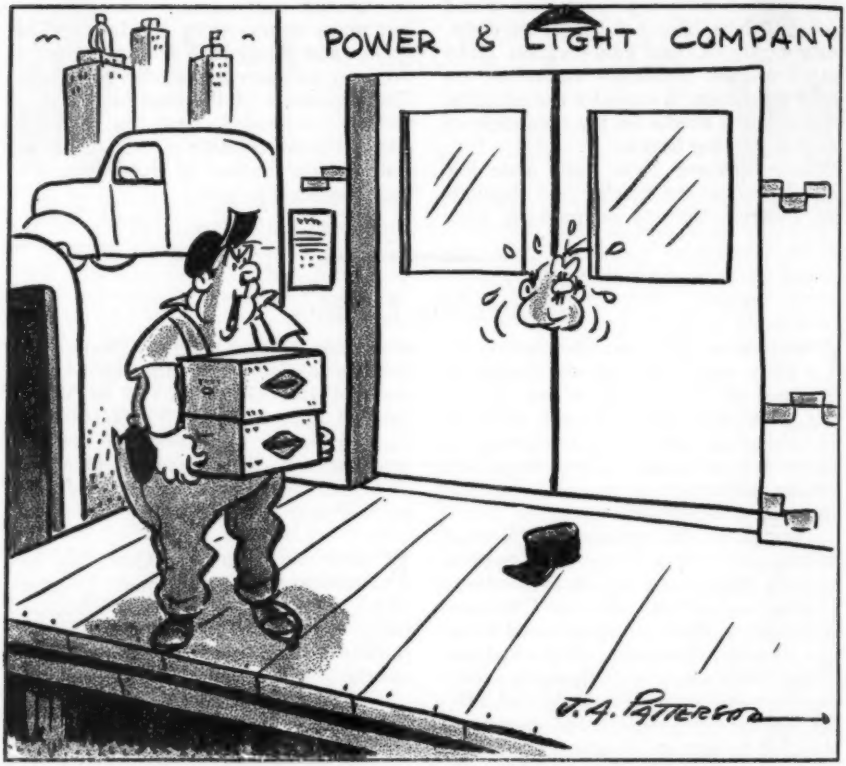
(1) New generating and transmission facilities to be constructed at a cost of $27,000,000.

(2) An interconnection with the Ohio Power Company through a transmission line that will add 20,000 kilowatts of capacity to the Kentucky Utilities system.

(3) A new 5-year rate schedule applicable for nonprofit rural electric coöperatives.

The new 5-year rate schedule was reached after the completion of studies that have been going on since last May. Under the new rates the coöperatives will pay an average cost per kilowatt hour of 10 per cent less than the national average charged by other power companies in the country.

In arriving at some of the figures included in the over-all expansion plan, R. M. Watt, the utility president, dis-



"I CAN'T HOLD THIS ALL DAY—MAKE UP YOUR MIND. YOU GOIN' IN OR COMIN' OUT?"

closed that the company had made use of an "electronic brain" at Purdue University. The answers set up by the Purdue calculator have been incorporated in the company's plan, which was filed with the state commission. Among the various additions to the generating plant and distribution equipment is a new 30,000-kilowatt generator at Pineville and the new 60,000-kilowatt generator at Tyrone.

The interconnection with Ohio Power will add some 20,000 to 60,000 kilowatt-hour capacity to the Kentucky system, as well as a new source of power. The new interconnection, expected to be completed this year, will cost more than $2,000,000. Company officials consider it the equivalent of a new power plant and will save ten or more millions of dollars, the cost of an actual power plant of that size. Similar connections with other neighboring power companies are planned for the future.

THE Georgia utility plans to spend more than $34,000,000 on new construction this year, according to C. B. McManus, company president. The sum of $15,000,000 will be spent on the completion of Plant Yates, the company's new 200,000-kilowatt steam-electric generating plant located on the Chattahoochee river near Newnan. The plant is expected to be in operation before the end of the year.

Preconstruction engineering is also planned on a new 20,000-kilowatt unit to be added to the Bartlett's Ferry hydroelectric plant on the Chattahoochee river above Columbus and on a large new steam-electric generating plant to be located in southeast Georgia. Work will also continue on the 50,000-kilowatt Furman Shoals hydroelectric plant located on the Oconee river near Milledgeville.

Substantial outlays for additional substation capacity and a new 110,000-volt transmission line comprise a large share of the expansion budget. The company expects to add approximately 29,000 new customers, including 1,000 rural customers, during the year which will necessitate the construction of 1,000 miles of distribution lines as well as 200 miles of new rural lines. More than $6,000,000 is allocated for this purpose.

Management Responsibility

THE importance of management responsibility was emphasized recently in a talk given by James W. Parker, president and general manager of Detroit Edison Company, before a gathering of the supervisors of the utility. A report of the talk in the November issue of *Synchroscope*, the monthly publication of Detroit Edison, indicates that Mr. Parker emphasized the necessity for and the difficulty of doing a thorough job in informing employees and customers of the company of the significance of the encroachment of the government in the field of electric power.

Mr. Parker recognized the problem when he said, "It is not an easy thing to inform the public in any large community upon a complex subject like this. Folks aren't easily interested. The facts would make dry, even difficult reading for many."

On this point he recommended that the more dramatic side of the story be told, such as the progress the electric power industry has made in meeting its postwar challenge in rebuilding its reserve capacity. He suggested methods such as an open house program at newly completed plants. He referred to one such program recently conducted at the company's Trenton Channel plant as going a long way in giving the customers and employees some idea of the tremendous amount of work the company is putting into its job of supplying power to the community. Parker thought that if a sincere effort were made to apprise customers of the Federal government power plans probably the people would eventually be aroused by the truth.

The utility executive cited the fate of the private power industries in France, Germany, and Britain, and referred to the French power people as saying that there would have been no nationalization of the French electric power industry if the companies had let their people know how well they were served and what the private corporations of France had done by way of developing the electric industry there. According to Parker today they say, "don't make that mistake in your country!"

MR. PARKER prefaced his above suggestions by tracing the steady growth of the government in the power field. He referred to three charts of the United States showing three phases of the development of public power during the years 1932, March, 1949 (in service), and March, 1949 (federally financed and planned projects). In referring to these charts Mr. Parker noted that the 1932 versions showed only two major items; namely, the Hoover dam and the beginnings of TVA. The 1949 chart (public power in service) shows up as one which is rather well spotted with the notable changes taking place in the Northwest, the TVA area, and the Southwestern Power Administration in Texas. The third chart shows what lies ahead—with almost innumerable projects "representing the ambitions of Federal agencies to

put the Federal government much more extensively into the electric power business."

The utility president stated that in a situation where the government encroaches on the power industry, and eventually other industries, there is no recourse to a regulatory body such as now exists in the form of the state commissions, and that once nationalization has been accomplished, the transactions which remaining private industries might have with the government would be on a take-it-or-leave-it basis, with no area of negotiation such as exists today in a free enterprise economy.

Comic Books with a Purpose

EBASCO SERVICES has just announced that the firm will soon be publishing "comic" style booklets on safety and educational matters for both adults and children. The series planned thus far will deal with safety subjects in the electric, gas, and transportation fields. Other subjects will be developed in the future. According to many sociologists, psychologists, and educators, this medium can be most effective in reaching mass audiences in educational efforts.

The booklet make-up will consist of sixteen pages in four colors. Several pages in each booklet will be devoted to the story of the American Way of Life in an effort to keep the advantages of the American Way constantly before the public.

The first booklet, planned for late February, will be on a safety subject of particular concern to electric utilities; namely, "Kite Flying." It is suggested that electric companies can distribute the comics through district offices, Granges, Scouts, Kiwanis, Rotary, and other organizations. Other suggested means of distribution are through appliance dealers, meter readers, employees, or as a bill stuffing.

Total Receipts of Tax Exempts

THE National Industrial Conference Board has just announced that the total receipts of all tax-exempt organizations reported to the government in 1946 were $9,853,000,000. The board defined "total receipts" as the total of income from all sources, including receipts from dues, assessments, gifts, grants, interest on dividends, rents, gross receipts from business activities, and gains or losses from the sale of assets.

Literary library, scientific, research, educational, and charitable units had the highest receipts among nonbusiness-type organizations. They accounted for $1,249,000,000 of the total.

Labor organizations reported receipts of $478,000,000.

Business and trade associations were almost $300,000,000.

About 35 per cent of the nonbusiness-type, tax-exempt organizations reported business receipts which included only rents and gross receipts from business activities.

About 28 per cent of the tax-exempt organizations were engaged primarily or exclusively in business activities. Typical of these were farmer coöperatives and mutual savings banks.

Over 70 per cent of the total for all tax-exempt organizations, or $7,039,000,000, was reported by the business-type units.

Farmers' coöperatives accounted for $5.6 billion. More farmer coöperatives had receipts of $1,000,000 than any other type of organization, according to the board's announcement.

—D. T. B.

The March of Events

In General

To Promote Farm Electrification

Five cash awards, totaling $1,000, and five engraved plaques, known as the Frank Watts Awards, will be made annually by *Farm Journal* magazine "to stimulate the promotion and sale of electrically operated farm equipment as a means of improving agricultural productive efficiency," it has been announced by Graham Patterson, of Philadelphia, publisher of the rural periodical.

Cash prizes of $300, $250, and three of $150 each will go to the farm departments of electric operating company organizations, while the plaques will be awarded to the winning companies. The plaques will read "for excellence in promoting farm electrification as a productive force for better farming and better living."

The Edison Electric Institute, New York, will administer the awards, which will be presented for the first time in April, 1951, for work done in 1950. Entries will close at the offices of the institute on February 1, 1951.

Line Tries One Meal *Table D'hôté*

Something new in railroad dining car service is now being tried out by the Pennsylvania Railroad on *The Jeffersonian*, streamlined overnight coach train between New York and St. Louis.

Menus in the new service offer but one entree, the main meat, egg, or fish course at each of the three daily meals during regular hours of service. An explanatory pamphlet for *Jeffersonian* passengers says that it is the same idea as eating in your home or the home of a friend or at a banquet. Call it "pot luck," "banquet-type service," or what you will, Pennsylvania officials call it their answer to high dining car prices.

A full course meal is served, but the "single entree" so reduces the high cost of dining car operation, particularly by eliminating the storage and serving of a large variety of foods, that materially reduced meal prices are possible.

A typical dinner menu includes tomato juice, broiled half chicken on toast, fresh broccoli with drawn butter, parsley potatoes, bread and butter, pumpkin pie, and tea, coffee, or milk. In regular dining car service such a meal would cost $2.35 but under the new setup the price is $1.45. Fish is offered on Friday as an alternate entree.

Transportation, Communications Exams

The United States Civil Service Commission has announced examinations for filling transportation and communications positions in Washington, D. C., and vicinity. No written test will be required, but applicants must have had appropriate experience or a combination of appropriate experience and education.

Positions open are: traffic and transportation specialist, rate examiner (public utilities), communication rate or tariff examiner, $3,100 to $6,400 a year; transportation rate auditor, $3,450 to $4,600 a year; and transportation tariff examiner (passenger), $3,825 a year. Applications and inquiries should be directed to the Civil Service Commission, Washington 25, D. C., prior to March 2nd.

Arizona

Tucson's New Power Plant Opens

More than 32 per cent of Tucson's 50,000 residents turned out for an "open house" at the recent dedication of the 24,000-kilowatt plant of the Tucson Gas, Electric Light & Power Company. Built in slightly over one year, the new plant, together with transformer stations, represents an investment of approximately $4,000,000, and brings the company's generating facilities to 44,000 kilowatts of capacity at normal ratings.

In addition to an attractive booklet describing features of the plant and pointing out the company's efforts to anticipate the city's future electric needs, visitors were regaled with barbecue sandwiches, bottled soft drinks, coffee, and ice cream.

Arkansas

Two-way Split Planned

Arkansas Natural Gas Corporation has filed a plan with the Securities and Exchange Commission to split itself into two new companies, the Arkansas Louisiana Gas Company and a new Arkansas Natural Gas Corporation. The plan would provide for the separation of the gas distribution, pipelines, and ancillary properties from Arkansas Natural's oil-producing and marketing properties and other gas properties.

The Arkansas Louisiana Gas Company will take over the natural gas and distribution assets, while the new Arkansas Natural Gas Corporation, with the Arkansas Fuel Oil Company merged into it, will absorb the oil-producing and allied parts of the business.

If the plan is accepted by the Securities and Exchange Commission, holders of the present Arkansas Natural Gas Corporation's common and class A shares will own all the common stock of each of the new operating companies. Each share of the present common and class A stockholders of Arkansas Natural Gas Corporation will receive one share of common stock in each of the newly formed operating companies.

California

PG&E Kern Plant on Line

The second generating unit of Pacific Gas and Electric Company's Kern steam plant at Bakersfield has been placed on the line with an installed capacity of approximately 102,000 kilowatts, bringing the total generating capacity of the Kern plant to 176,250 kilowatts. Costing $35,000,000, the plant was completed exactly on schedule, and brings to 640,000 kilowatts the total new generating capacity added to the facilities of the company since the war.

Located on a 75-acre site at Fruitvale, near Bakersfield, the plant is close to oil fields supplying the necessary fuel oil or natural gas for fuel, and is centered in an area where there has been great growth in the demand for power.

District of Columbia

To Fight Transit Radio

Washington's Transit Riders' Association, bitter foe of radio-equipped trolleys and busses, has engaged Hector G. Spaulding, professor emeritus of the George Washington Uni-

versity Law School, to wage battle against "forced listening" on streetcars and busses in the nation's capital.

In accepting the association's invitation to become its legal counsel in the dispute, already aired before the utilities commission, which ruled in favor of transit radio, Mr. Spaulding said he did so because he felt "very strongly" that fundamental human rights were involved.

"Several lines of attack may be pursued, but the core of the matter is the exploitation by a transit monopoly of its position to impose upon its patrons improper and undesired distractions totally unconnected with the business of transportation," Mr. Spaulding said. He added that the question is not merely one of music or no music, but of being free to think one's own thoughts without the intrusion of offensive announcements.

He brushed aside majority desires for "transit radio" with the declaration that it has no relevancy. Minorities are protected in this country when majority action, serving no vital interest, invades vital interests of a minority, Mr. Spaulding declared, asserting that transit radio is a direct, intentional attack on the basic freedom to direct one's attention where he may choose.

Iowa

Co-op Panel Warns of "Selfishness"

WARNINGS against "selfish" practices by coöperatives were voiced last month during a panel discussion at the convention of the Farmers Grain Dealers Association of Iowa in Des Moines.

The discussion followed a talk by J. K. Stern of Washington, D. C., president of the American Institute of Coöperation on "The Place of Coöperatives in Our Economy."

On the panel, in addition to Stern, were Frank Robotka, Iowa State College; Oscar Heline, Marcus, president of the grain dealers; Albert Koolhof, Webster City, a director of the association; and Lauren Soth, editorial writer for *The Register and Tribune*.

Robotka posed the question as to whether co-ops actually rendered service to the public or were more interested in serving themselves. He asked for a specific example of service.

Koolhof cited discounts he said farmers had to take on soybeans a few years ago because the beans were either green, yellow, or cracked.

"When the co-ops came into the picture," he said, "they soon proved that there wasn't much difference in the oil-producing ability of the three kinds of beans. Farmers soon found out that they didn't have to take discounts."

Heline said there was a danger of co-ops becoming selfish. "When co-ops do that," he said, "competitors will come in and take over."

"Yes," said Stern, "there have been examples of this. I know of some co-ops getting to a point where they were not serving the public, and private competition came in with more efficient methods and took the business.

"I think," he added, "that we always will be on that merry-go-round."

Kentucky

Super Co-op Hearing Set

THE Kentucky Public Service Commission has set March 14th for hearing of a petition by the East Kentucky Rural Electric Coöperative, asking permission to borrow $12,265,000 from the Rural Electrification Administration to begin construction of a $30,000,000 generation and transmission system. The Federal agency approved a loan Novem-

ber 23rd, but state approval is also needed.

Rural Electrification Administration's November allocation of $10,265,000 will be combined with a $2,000,000 allocation made in 1941 to start work on a generation and transmission system, halted by the war effort.

Maryland

Eight-year Power Line Fight Ends

AFTER a battle that has lasted for eight years, Baltimore County Circuit Court Judge J. Howard Murray has sanctioned erection of a high-voltage power line on steel towers through Greenspring valley, fashionable Baltimore suburb. Judge Murray has reversed local zoning authorities, who had ruled that a 2.6-mile section of the line should be laid underground or be placed on wooden or steel poles.

That refusal of the special permit would cause the company "a hardship of the kind and quantity" justifying an exception from the regulations, Judge Murray said was a conclusion "irresistible from a legal standpoint." He also held that the testimony of real estate experts on potential damage to surrounding property was "highly speculative."

"No one contends," Judge Murray continued, "that steel towers of the nature here considered are structures of beauty, but neither is that the test.

"If their construction does not infringe upon the elements of the police power upon which zoning is predicated, they cannot be prohibited on esthetic or sympathetic considerations."

Lower Gas Rates for Baltimore

CONVERSION from manufactured to natural gas, to begin May 1st and be completed November 1st, will result in annual savings of $7,665,000 to customers of Baltimore's Consolidated Gas Electric Light & Power Company. In filing a schedule of reduced gas rates with the Maryland Public Service Commission, the company stated that consumers will receive the benefit of reduced rates after adjustment to natural gas has been made in their individual units. Consolidated will buy its natural gas from Atlantic Seaboard Corporation.

Nebraska

Fight Hastings Gas Move

THE Federal court has been asked by the Kansas-Nebraska Gas Company for a declaratory judgment which would prevent the city of Hastings from ending its contract to buy gas from the company.

Contending that the company's rates for gas supplied to the municipal water and light plant were excessive in comparison with costs of other fuel, the city notified the company last August it was ending its contract.

The company, in asking the judgment, declared that the existing contract excludes the right of the city to buy gas for the water and light plant, but that it must be bought under a separate contract which the company has fulfilled.

New Jersey

Union Bucks Antistrike Law

THE New Jersey CIO, the state AFL, and independent unions announce that they will oppose any law that restricts the freedom of utility workers to strike. A law that permits the state to seize strike-bound utilities, and requires

compulsory arbitration of disputes causing strikes, will expire March 31st.

Efforts are being made by State Mediation Board Chairman Margetts to get labor and industry to agree on a new law which would meet reasonable objections to the present statute, without sacrificing the vital principle that the public is entitled to protection against stoppage of vital services.

North Dakota

Opposes Public Power

ALTHOUGH Federal policies give preference to public power bodies and coöperatives in the sale of government-generated power, Governor Fred G. Aandahl, of North Dakota, opposes any change to public power utilities in his state.

"Under any circumstances, I don't want public power in North Dakota," the governor declared at a recent Sioux City meeting of the Missouri Basin Inter-Agency Committee of which he is a member. His statement was in comment on a proposed special legislative session in the Sioux state to frame a public power district law, creating means to organize public power districts replacing privately owned utilities.

The projected legislation is designed to help North Dakota obtain power to be available within a few years from the Fort Randall dam in South Dakota and the Garrison dam in North Dakota. South Dakota advocates of public power districts contend that Nebraska will get the lion's share of the power generated.

Adding that he expects North Dakota to get a fair share of Garrison and Fort Randall power, Governor Aandahl said he would not favor introduction of a public power bill at the next regular legislative session, January-March, 1951.

Virginia

Co-op Regulation Hit

THE Virginia Rural Electrification Association has unanimously opposed a bill which would require all electric coöperatives and proposed telephone coöperatives to obtain certificates from the state corporation commission. W. H. Copley, head of the group, termed the bill "the most dangerous piece of legislation to come before the general assembly in recent years."

Copley, who heads the Old Dominion Electric Coöperative, said the bill, if it becomes law, "will be used to kill the Old Dominion and to prevent any organization and operation of any proposed rural telephone coöperatives."

The association, which is made up of fifteen coöperatives in the state, went on record as favoring a bill which would permit formation of telephone coöperatives along the same lines that electric coöperatives are set up.

Washington

State Power Law Upheld

THE Thurston County Superior Court has upheld the constitutionality of Washington's new power law. The decision by Judge John M. Wilson thus appealed clears the way for a $100,000,000 deal in which eight public utility districts propose to purchase all electric facilities and properties of the Puget Sound Power & Light Company.

The law under which the proposed transaction was planned was challenged by Olympia firms and individuals in an effort to prevent the Thurston PUD from joining other PUD's in the deal.

Progress of Regulation

Depreciation Properly Deducted in Fixing Rates Of Interstate Power Company

THE United States Court of Appeals affirmed an order of the Federal Power Commission reducing rates for electric energy transmitted in interstate commerce by the Safe Harbor Water Power Corporation. The return of 5 per cent which the commission had allowed was considered fair and reasonable. The court also decided that the return was predicated upon a formula authorized by the Federal Power Act.

The company was found to be not only a licensee under Part I of the Federal Power Act but also a public utility under Part II. The court held that the commission could regulate the company's rates under Part II of the act as well as under § 20 of Part I. It believed that these sections were not inconsistent with each other and that, therefore, Part II did not repeal § 20 of Part I by implication.

In view of this ruling, the court found it unnecessary to decide the question raised by the argument that since the company was a licensee, it should be regulated as such even though it was also a public utility.

The commission had found that it had jurisdiction to regulate the company's rates under § 20 of Part I of the act because the states of Pennsylvania and Maryland had been unable to agree on regulation. The court ruled that this finding had properly been based upon a long-continued failure of the states to coöperate in fixing the company's rates.

The court decided that the commission had correctly applied the provisions of § 206 of Part II of the act in the light of § 20 of Part I. Depreciation was properly deducted in arriving at the rate base.

The commission had used the straight-line depreciation method. It also used the company's service-life estimates. The court upheld the commission in view of a deficiency in the depreciation reserve and because the age-life estimates were reasonable. The commission also properly rejected the theory of observed depreciation, preferring to estimate it as a "using up of service life" and not as a "sudden event which occurs in the final stages of service."

The court conceded that the commission's position with respect to the depreciation method to be applied had been altered. It noted the fact that the commission had previously compelled the company to make use of the compound interest method and had rejected the straight-line and sinking-fund methods. However, the court said, "an agency is not compelled to be consistent, though consistency is a jewel in any crown." By compelling the company to adopt a different method of accounting, the commission had not deprived it, its stockholders, or the public of any substantial right. The commission had acted in what it deemed to be the public interest and had advanced sound reasons for a change of policy, the court noted. There was no basis for judicial interference. *Safe Harbor Water Power Corp. v. Federal Power Commission (No. 9345).*

Commission Urges Increase in Rate for Pay Station Calls Notwithstanding Equipment Change

A STATEWIDE telephone company's application for a rate increase was approved with modifications by the Washington commission. A rate base of average original cost plus an allowance for materials and supplies and working capital less average depreciation reserve was used in its computation. All items were apportioned between intrastate and interstate business.

The commission considered 2 per cent of the company's average net plant to be a reasonable allowance for materials and supplies and working capital.

A payment by the company of one per cent of its gross revenues to its parent company, under a license contract by the terms of which the parent rendered various services to the subsidiary in exchange for such payment, was allowed as a charge to operating expense.

The commission also allowed the full amount paid by the company to an affiliated supplier of telephone equipment, notwithstanding the fact that the supplier earned a greater return on its sales than would be allowed a utility under commission jurisdiction. The ultimate effect of these payments on the utility's expenses was described as "inconsiderable."

The company was allowed a 6 per cent return on its rate base. This was considered by the commission as reasonable and proper and adequate to cover financial requirements.

In its investigation of the rate structure the commission noted that certain local calls were being made from pay stations for 5 cents, while calls of similar distances when made from residence phones were charged for at a 10-cent rate. This situation prompted the commission to urge a 10-cent rate for pay station calls. The company opposed this increase principally on the ground that the interior mechanism of coin boxes would have to be changed or a new coin box substituted for the one already in use.

The commission characterized the company's failure to take action on this considerable source of additional revenue, at a time when it was vigorously complaining about failing gross revenues, as inexcusable negligence. The coin-box user, the commission said, had been specially favored by omission from past rate increases.

The company's position as a member of a nation-wide system and as an affiliate of a large supplier of equipment was emphasized by the commission in its advice on the coin-box problem. The company was directed to make use of the services for which it pays its parent by early request for technical advice as to the conversion of existing boxes and equipment to permit the charging of 10 cents for local calls or the design of new boxes and equipment for the same purpose. The company was further directed to make use of the services for which it pays its affiliated supplier by early request for information as to manufacture of alterations on existing boxes and equipment or new boxes and equipment to accomplish the conversion.

The commission noted that telephone and telegraph businesses are still burdened with wartime excise taxes whose broad purpose was in aid of the war effort. These taxes, the commission observed, have served their usefulness and should be repealed. *Washington Pub. Service Commission v. Pacific Teleph. & Teleg. Co. (Cause No. U-8207).*

Distribution of Subsidiary's Stock to Holding Company Stockholders Approved

THE Securities and Exchange Commission authorized a holding company to distribute to its stockholders, as a special dividend, one-tenth of a share

of common stock of its subsidiary for each share of its own common stock. This would reduce its holdings of the presently outstanding voting securities of the subsidiary from 28.5 per cent to 14.1 per cent.

The holding company had been ordered to cease being a holding company. The commission had concluded that this could be achieved through liquidation, but it recognized that other methods might be appropriate. The company's management had expressed a strong preference to convert the holding company into an investment company. The commission had determined that under proper conditions and safeguards this might furnish a feasible method of compliance. Consequently, the original order had merely required the holding company to change its capitalization to one class of common stock and to take such further action as would cause it to cease being a holding company.

The commission observed that the proposed distribution represented a reasonable and economical method of proceeding only on the assumption that the holding company was to become an investment company. That assumption could be fully accepted only after the resolution of certain questions still unresolved. Whether the proposed distribution was appropriate depended upon whether it was a reasonable step in the absence of a final determination of whether, and upon what terms, the holding company would become an investment company. The commission concluded that the weight of interest was in favor of permitting the distribution. It felt that its statutory responsibilities required that it be able to view each transaction in the larger context of an approved program so that it could properly apply the standards of necessity and fairness.

The commission concluded that while it could not approve the transaction as but the first of a series of similar piecemeal steps that would have the effect of avoiding forthright consideration and resolution of the necessary issues, it might approve it as necessary only on the condition that the holding company file promptly, and as its next step under the commission's simplification order, a comprehensive plan detailing the remaining steps to be taken, and the timing thereof, to complete its transformation into an investment company. It stated that it could and would consider any further proposals only as part of such a comprehensive plan, since only in that manner could it ensure that the action taken would be reasonable and fair to the holding company's security holders. *Re United Corp. (File No. 54-167, Release No. 9431).*

Expense of Negotiation of Nonconsummated Sale Disallowed

THE expenses incurred by a water company in negotiating for the sale of its property and plant to a municipality, which sale did not materialize, were disallowed by the Missouri commission. The expenses in no way enhanced the value of plant to the customer receiving water service but merely protected the investment of stockholders.

Payments made to its parent company under a license contract providing for a payment of 3 per cent of the subsidiary's gross operating revenues in exchange for various managerial services were disallowed where no evidence of the value of the services was presented. The commission pointed out that the burden of proof was on the utility to prove the reasonable value of the services rendered.

While the rates approved were somewhat lower than requested, they would, the commission said, yield revenues which, after payment of all operating expenses and fixed charges, would leave the company a sufficient return to attract capital and maintain its financial integrity. *Re Springfield City Water Co. (Case No. 11,505).*

Capital, Labor, and Public Should Share Higher Costs

THE Pennsylvania Superior Court vacated a commission order authorizing a transit company operating in the city of Pittsburgh to charge increased fares. The court observed that the record of the rate hearing was insufficient to support the commission decision. The matter was remanded for additional findings of fact.

The absence of any evidence as to obsolescence, which the commission described as a most important element in a determination of accrued depreciation of a street railway system, was commented on at length.

The lack of information concerning the reason for rate differences and the possibility of zoning as a means of more equitably distributing the rate burden, as well as the absence of statistics or records supporting the commission allowance of a 6½ per cent rate of return, were also mentioned.

In discussing the decline of gross revenues experienced by street railway systems, the court pointed out that some of them, after obtaining several fare increases to meet the rising cost of labor and equipment, had reached the point of diminishing return. In other words, when a transit fare reaches a certain level, customer resistance becomes so great that gross revenues decline even though each rider is paying more than he did before. Capital, labor, and the public, the court opined, will each have to bear a share of the burden resulting from inflated prices and costs if such a company is to survive. *Pittsburgh v. Public Utility Commission.*

Declining Costs Bar Cab Rate Increase

THE Maryland commission denied taxicab companies operating within the city of Baltimore a rate increase where it appeared that a composite return of 15 per cent had been earned in the preceding year. In computing this return the commission did not consider the high resale value of used automobiles prevalent during 1948.

An independent taxicab association protested the increase by the fleet operators on the ground that if cab fares were increased, the point of diminishing return would be reached because fewer people would ride in taxis. The commission did not comment on this argument but ruled that no immediate need for an increase was apparent in view of the fact that the cost of gasoline and automobile insurance had declined. *Re Rates for Taxicab Service in Baltimore City (Case No. 5023, Order No. 46619).*

Request for Higher Return Than Permitted under Rate Adjustment Plan Denied by Board

AN application of New Jersey Power & Light Company for approval of a deviation from the standard application of the rate adjustment plan approved in *Re* New Jersey Power & Light Company (1944) 53 PUR NS 1, was denied by the New Jersey board. The company proposed that 6 per cent be adopted as the basic rate of return, instead of the basic rate developed by application of the plan formula, pending a suggested revision of the formula. In effect, the company was seeking a suspension of the operation of the formula and the interim adoption of a 6 per cent basic rate of return.

The record, according to the board, did not support the company's contention that a basic rate of return of not less than 6 per cent was required. The return under the plan formula for the year 1948 was 5.29 per cent and there were said to

be no indications of any substantial changes in this result for the year 1949. The company had been able to sell bonds in 1949 at an annual cost rate of 2.77 per cent and its outstanding preferred stock was at the time of the hearing being traded in the market on approximately a 4 per cent basis. The commission said:

> Unless required, because of the existence of emergency conditions or other critical situations which may endanger the ability of the company to adequately meet its service responsibilities, it would appear that the accomplishment of the objective for which the plan was designed requires that significant deviations, when in order, should not be introduced other than by actual restatement of the rules and procedures of the plan.

The company had been charging interest on construction accounts but had included construction work in progress in its rate base claim. It attempted, according to the board, to obtain some semblance of consistency in its rate base computation under the plan by excluding from net additions the amount of interest that had been charged on the books during construction. The board decided that the company should not include construction work in progress in the rate base calculation. *Re New Jersey Power & Light Co. (Docket No. 4496).*

Gas Rates Established by City Ordinance Approved Despite Irregularities

THE Iowa Supreme Court dismissed a customer's action to prohibit the enforcement of newly adopted gas rates. The customer claimed that the rates proposed by a private utility and adopted by the city council pursuant to authority conferred on it by the state legislature were invalid because of irregularities in procedure.

The court pointed out that the authority of the city to regulate rates as delegated by state statute was legislative and not subject to judicial control. The council's failure to follow any established procedure could not be complained of in the absence of any complaint of unreasonableness.

Finally, the court ruled that the council's action, in providing for rates not in excess of a certain level instead of a definite schedule, was not improper in view of a further provision giving all consumers desiring service under similar conditions the privilege of making similar contracts, thus insuring equal treatment. *Pell v. Marshalltown, 40 NW2d 53.*

Municipal Consent Not Required for Substitution Of Busses for Streetcars

THE supreme court of New Jersey held that an existing bus company had no legal standing to question the constitutionality of a statute under which a street railway company was authorized to substitute busses for streetcars. The street railway company had not obtained municipal consent to operate busses because the governing statute did not require it. However, the competing bus company claimed that the statute should be read in conjunction with a statute requiring bus companies to obtain not only board approval but also municipal consent to operate.

The court said that the regulation of public utilities is for the benefit of the state and its citizens, and not for the benefit of established utilities or competitors of a rival company which may obtain a franchise or operating right in accordance with pertinent enabling legislation. The corollary of this rule is that a competitor is not a party in interest who can

collaterally attack a franchise or operating right granted to a rival pursuant to such statutory authority.

In this case the street railway company was authorized to substitute 35 busses for a similar number of streetcars over its existing routes. It was conceded that the contesting bus company's route parallels the lines of the street railway company. But, the court said, that condition previously existed and was not changed by the challenged proceeding. The court believed that this action could not have an adverse effect upon the bus company's existing business. It held that the absence of proof of real injury is fatal to one endeavoring to attack the validity of an enactment.

The court found that the statute requiring municipal consent to the operation of busses was not applicable to street railways. The bus company's contention that the statute enabling the street railway company to substitute busses for streetcars without obtaining municipal consent violated the equal protection clause of the Fourteenth Amendment of the United States Constitution, in view of the fact that bus companies were required to obtain municipal consent to operate.

The court decisions relied upon held that statutory classification must regard real differences between persons, and that no impediment should be interposed to the pursuits of any one except as applied to the same pursuits by others under like circumstances. Illegal discriminations should not be made between persons in similar circumstances. The court did not believe that the parties in this case were in similar circumstances. They were authorized to transport passengers under entirely different enabling statutes. *Public Service Coördinated Transport et al. v. Newark-Elizabeth Independent Bus Owners Asso. et al. 69 A2d 22.*

Other Important Rulings

THE Arkansas Supreme Court reversed a commission order authorizing the operation of more through busses between certain cities where the effect of the order would be to increase, without justification, the service available at off times without meeting the needs appearing all along the highways during peak periods; and the court directed that the certificate be modified so that the public need would be satisfied without damaging the operation of a competitor as to whose service no inadequacy had been shown. *Missouri P. Transp. Co. v. Inter City Transit Co. 224 SW2d 372.*

The Missouri commission authorized discontinuance of a water system serving only eleven customers in a real estate subdivision where ill health of the owner and operator precluded his continued services and the system could not be operated at a profit without prohibitive rates to the users. *Carpenter et al. v. Johnston et al. (Case No. 11,437).*

The Florida commission, in authorizing a telephone company to increase rates to yield a return of 6 per cent, considered the fact that the statutory legal rate of interest in Florida is 6 per cent and that this rate applies irrespective of whether the venture requiring the interest be safe or perilous. The commission also considered general economic conditions, the company's ability to attract capital, its financial history, and the efficiency of its management. *Re Winter Park Teleph. Co. (Order No. 1576, Docket No. 1683).*

In allowing a municipal water utility a rate increase sufficient to provide a return of 5½ per cent the Wisconsin commission ruled that an annual charge for public fire protection equal to $1.37 *per capita* compared favorably with charges for similar service in like communities. *Re La Crosse (2-U-3157).*

The Indiana commission ordered a railroad to install flasher lights at an un-

protected highway-railway grade crossing where visibility at the crossing was limited, the highway was heavily traveled, and there had already been a number of accidents. *Re Van Buskirk (No. 21412).*

A municipal electric utility's proposed rate of 1.5 cents per kilowatt hour for off-peak service was rejected by the Wisconsin commission as unwarranted and excessive when the lowest step of the residential and commercial lighting rate was also 1.5 cents per kilowatt hour. *Re Plymouth (2-U-3141).*

The Colorado commission held that it may not fix rates based on a contract between a municipal water plant and consumers, entered into when the consumers gave the water plant rights of way, calling for reduced rates. *Lechleiter et al. v. Olathe et al. (Case No. 4996, Decision No. 33971).*

In allowing a telephone company increased rates which would provide a 6.09 per cent return on its rate base, the Idaho commission observed that a wage increase awarded to employees in settlement of a strike had so reduced revenues as to affect seriously the company's ability to obtain financing necessary for the continuance of its conversion and expansion program. *Re Interstate Teleph. Co. (Case No. F-1455, Order No. 2020).*

In dismissing the complaint of a tank truck operator against a town's alleged illegal transportation or sale of water to its citizens, the Pennsylvania commission pointed out that it lacked jurisdiction over the complaint since only those operations of a municipally owned utility beyond its corporate limits are subject to regulation. *Bickerton v. Jefferson (Complaint Docket No. 14816).*

The Massachusetts Department of Public Utilities denied a railroad's application for authority to discontinue certain trains where no showing of loss of patronage indicating lack of public need for the service was made. *Re Boston & Maine Railroad (DPU 8314, 8381).*

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TITLES

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v.

Public Service Commission of Wisconsin

October 21, 1949

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REIS, J.: It is predicted ominously that our present decision will mark the ruination of "independent" (non-Bell) telephone companies. *"This court* must determine *whether the days of the small independent utility are numbered."* (From petitioner's brief, p. 45.) (Our italics.)

We do not penetrate the wherefore of this dire prognosis. Nor do we understand why our supposedly mortal blow affects "independent" any more than Bell companies. The principle as to each is the same. And we would be aghast to feel that this inconspicuous court in Wisconsin had sounded the death knell for the telephone industry of the United States in its entirety.

[1–3] We are endorsing an eminently fair doctrine, as we view it; namely, that depreciation reserve may be deducted from book cost in determining a public utility's rate base, upon which to allow a reasonable return.

Petitioner herein contends that book cost or investment cost, if accepted as the starting point, must be taken *undepreciated.* We hold otherwise: Depreciation reserve properly accumulated on a straight-line basis may be deducted from book or investment cost in reaching rate base. (Of course "sinking fund" depreciation reserve should *not* be deducted. That is a "horse from another garage," *infra.*)

The *potentially* dynamic impact of this present decision (IF ULTIMATELY SUSTAINED) upon telephone, and other utilities, we recognize. We emphasize *potential.*

As to American Telephone and Telegraph Company and its subsidiary Bell companies—which constitute the major group in this country's telephone system—the ultimate decision does have THEORETICAL chance of affecting $93,000,000 annually in the income account of the Bell organization—93 million either in favor of telephone customers or 93 million to the interests of AT&T's security holders, or some apportionment between the two.

A consolidated balance sheet of the AT&T system, as of a relatively recent date, shows depreciation reserve of $1,444,262,051. (Taken from 1943 Report of Committee on Depreciation, National Association of Railroad and Utilities Commissioners, p. 135.)

Six and one half per cent return—allowed by the Public Service Commission in the "Community's" order now under review—this rate of return upon $1,444,262,051 figures out to $93,877,033.31. So that if the bil-

lion, 400 millions of depreciation reserve must be *included* in a book cost rate base, there are rate *increases* possible—how many millions, *if any,* out of 93, *quaere;* whereas if the billion, 400 millions may be *deducted* from book cost as a rate base, then rate *decreases* are possibilities—what millions, again *if any,* out of 93, the same query. EITHER EVENTUALITY DEPENDS *on just how rates are being based at the present time as to the individual company concerned.*

The closer an existing rate base of depreciated reproduction cost comes to book cost less depreciation reserve, the less will be the effect of substituting the latter; and, vice versa, the extent to which an existing rate base of depreciated reproduction cost exceeds book cost less depreciation reserve, the more pronounced will be the consequence of using the latter method.

We realize, however, that there are other factors besides deducting or not deducting depreciation reserve which play a part in fixing the reasonableness of a rate charged for utility service and that situations vary widely between different companies.

We are aware that adjustments in the income account may be as significant as in the rate base. Indeed, an increase or decrease in allowable operating expenses has some 15 times the influence of raising or lowering the rate base by the same dollar figure (assuming a rate of return of 6½ per cent).

Nevertheless, deducting depreciation reserve from book cost may be a most crucial factor to affect rate regulation in the future, if it is a lawful method and is made effective by public utility regulatory Commissions to supplant the base of reproduction new less observed depreciation.

We think that it is a fact of common knowledge—at least in telephony circles—that, as rate bases, Bell system's physical appraisals less so-called existing depreciation run substantially higher than book cost minus depreciation reserve. E. g., in the statewide rate case of Wisconsin Telephone Company a few years ago, total recorded exchange plant, per company appraisal, was $60,288,374 with 9.78 per cent existing depreciation—a net of approximately 54 million rate base (exclusive of going value and working capital, materials and supplies)—while book cost of the same property was $57,333,678 minus depreciation reserve allocable thereto of 28.47 per cent or a rate base of only 41 millions approximately—a thirteen million dollar difference. (Final order, Public Service Commission of Wisconsin, 2–U–35, March 24, 1936, 12 Wis PSC R 1, 63, 91, 13 PUR NS 224, 264, 280.)

The figures cited are aggregate, without allowance for property not regarded as used and useful, nor the amount of exchange plant allocable to interstate use,—nor for "terminal toll segregation," that combination engineering enigma and traffic trap-door gestated by the Supreme Court of the United States in Smith v. Illinois Bell Teleph. Co. 282 US 133, 150, 151, 75 L ed 255, 264, PUR1931A 1, 8, 51 S Ct 65.

We give vent to the foregoing seemingly extraneous comments, somewhat by way of apology for a "judicial" opinion (if thus it may be dignified) which will be drawn out and, peut-etre, boringly arid. The issue,

however—because of what may be far-reaching consequences — deserves attentive treatment, albeit jejune.

We must confess at the outset that we had thought that this question of deducting depreciation reserve or at least the appropriate portion of an excessive reserve, had been settled by the Supreme Court of the United States in the Hope Case and that thereafter it was regarded as lawful to take book cost as a starting point and deduct therefrom the depreciation reserve or a fitting part thereof where the reserve was found to be too high. Federal Power Commission v. Hope Nat. Gas Co. (1944) 320 US 591, 88 L ed 333, 51 PUR NS 193, 64 S Ct 281.

But subsequently to the Hope decision the Supreme Court at Washington took some of the hope out of "Hope" when it stated as to the Hope Case: *"All that was held* was that a company could not complain if the return which was allowed made it possible for the company to operate successfully." (Our italics.) Market Street R. Co. v. California R. Commission (1945) 324 US 548, 566, 89 L ed 1171, 1184, 58 PUR NS 18, 30, 65 S Ct 770.

This expression re-injects elusive elements and surely is not a firm declaration—in haec verba—that book cost *less depreciation reserve* is a lawful rate base.

State supreme court decisions since the Hope Case conclude that the regulatory Commission must have "some basis upon which it was figuring the fair return. . . ."

Commonwealth Teleph. Co. v. Public Service Commission (1948) 252 Wis 481, 484, 73 PUR NS 97, 99, 32 NW2d 247.

"There must be a rate base upon which the rate of profit is to be calculated." Utah Power & Light Co. v. Public Service Commission (1944) 107 Utah 155, 56 PUR NS 136, 178, 152 P2d 542, 572, concurring opinion of Hoyt, District Judge.

The Wisconsin Commission considers the question of deducting depreciation reserve to be "still open." (Reply brief, p. 20.) Obviously the petitioner Community regards it as open, despite the Hope Case, or petitioner would not have brought this lawsuit.

The very latest treatise that we have found—written only five months ago, by a New York lawyer—asserts that "the basic question still exists," i. e., as to deducting depreciation reserve from book cost in order to reach a rate base. (62 Harvard Law Review 1155, 1156, *May, 1949, infra.*)

So we out in Wisconsin shall now do our best, in the small way that is our lot, to start *judicially* SETTLING the question of whether depreciation reserve may be deducted from book cost in order to determine the rate base for a public utility.

Community Telephone Company—a company not associated with the Bell system, so far as the record reveals—operates 31 exchanges scattered from Black River Falls through Westfield and Wautoma to Darien and Walworth — in thirteen counties of this state. It has approximately 11,000 subscribers.

All of Community's common stock and bonds are said to be owned by Inland Telephone Company.

The Community Telephone Company filed a request with the Public Service Commission of Wisconsin for

an increase in rates. The Commission granted some increase but not the amount to which the company thought that it was entitled.

The company asserts that it must be allowed at least $92,724 net operating income annually whereas the Commission fixed new rates calculated to produce $55,735 annual net operating income (Table VI, page 13, Commission's "Opinion and Order," 2-U-2608, March 29, 1949).

The difference between $92,724 and $55,735 — namely, $36,989 — comes fairly close to 6½ per cent upon $513,123 depreciation reserve, which reserve the Commission *deducted* from book or original cost. Six and one-half per cent upon $513,123 is $33,352.

With this closeness of figures, it must be clear that a decision upon the propriety of deducting the depreciation reserve from book cost, if it is held proper, is decisive of this case even though other matters, such as the Commission's treatment of going value, maintenance expense, etc., might be assembled so as to justify the Commission in reaching its net operating revenue figure of $55,735 and to adequately explain the difference between the sum that the company insists upon and the amount which the new rates are expected to earn.

To be sure, the $33,352—6½ per cent on the amount of the depreciation reserve—is about $3,400 short of the difference between $92,724 desired by the company and $55,735 allowed by the Commission as net operating revenue; but this $3,400 could be more than accounted for, if the rate of return on the rate base of $858,097 adopted by the Commission were reduced by *less than one-half of one per cent.* And we do not believe that the court would hold that 6 per cent on a legally sufficient rate base is an unlawfully low rate of return today.

So, we repeat, if the Commission's disposition of deducting the depreciation reserve from book or original cost is correct as a matter of law, then its order is valid and as to the result thereof in dollars the petitioner accordingly cannot rightly complain.

There is no dispute as to the reliability of the book of investment figure. Any discrepancy between what petitioner paid for the property and cost to the original owner has been taken care of by an "acquisition adjustment" account. (Commission's Opinion and Order, p. 4.)

Original cost less depreciation reserve is a legal and proper rate base in this case. That is the sum total of our decision.

The company's reply brief speaks of the Commission "fanatically" adopting a formula of deducting depreciation reserve from original cost to establish a rate base.

If the Commission's method can be utilized, then a bookkeeper could establish the rate base, it is suggested.

Before we discuss the essential legal soundness of the Wisconsin Commission's position, let us view for a moment its plain practicality.

The appraisal by the company herein is covered in two tomes embracing 519 pages—which is glaringly scant, as telephone appraisals go.

In the Wisconsin Telephone Case of a decade or so ago, it is said that the company had 200 men engaged in the appraisal for two years at a cost of $1,018,611, *which the telephone cus-*

tomers paid. We do not mean to be unfair by that statement. It is undisputed that this million dollars plus, of appraisal cost, was permitted to be charged by the company *to operating expenses,* amortized over a period of ten years. (Final Order 2–U–35, March 24, 1936, 12 Wis PSCR 1, 52–55, 13 PUR NS 224, 256–258.)

In addition, the Public Service Commission itself had rate case expenses of $467,139—which it billed to the company and which the company in turn was allowed to add to *operating expenses,* amortized as indicated. (Ibid, pp. 40–42.) Not all of these PSC expenses were incurred for the appraisal work.

The *Commission's* engineers occupied 32,802 man days in making the appraisal of the company's property, "or roughly *100 man years. In other words, if a Commission engineer had started a century ago on the appraisal of this company's property, he would just be finished.* Underlying the Commission's appraisal exhibits were an estimated *"117,266 working papers."* (*Ibid,* at p. 7 of 12 Wis PSCR, at p. 233 of 13 PUR NS.) (Our italics.)

No wonder the Wisconsin statewide investigation took five years and accumulated a record of 12,106 pages of transcript and 413 exhibits, in addition to the record in the Madison Case (PUR1933C 294) consisting of 1,369 pages of typewritten testimony and 153 exhibits.

The New York Telephone record comprised 62,864 pages of testimony and 4,323 exhibits. The investigation took ten years. The Chicago Telephone Case began August 16, 1923 (PUR1924A 213), "and closed by decision of the United States Supreme Court on April 30, 1934 (292 US 151, 78 L ed 1182, 3 PUR NS 337, 54 S Ct 658) practically eleven years later." (*Ibid,* 12 Wis PSCR at p. 8, 13 PUR NS at p. 234.)

Does all this make sense? Is it demanded by the Federal Constitution? Petitioner seems to think so. This court does not.

The alternative to the Wisconsin Commission's present sensible idea of accepting original investment less depreciation reserve as the rate base, is to go back to the reproduction-cost-new-less-observed-depreciation philosophy with its extravagant and ever recurring, well-nigh endless appraisals—*the consumer paying the bill therefor.*

We renew our hope in "Hope." Whatever the Supreme Court says later that it "held" in the Hope Case, it *affirmed* the order of the Federal Power Commission which adopted as a rate base the *"actual legitimate cost" minus the depreciation reserve* in part. One Commissioner thought that the entire reserve, though excessive, should be deducted. The other Commissioners did not think that the excess should be deducted. The order deducted only so much of the book reserve as represented the *reserve requirement.* Federal Power Commission v. Hope Nat. Gas Co. (1944) 320 US 591, 597, 598, 88 L ed 333, 342, 51 PUR NS 193, 197, 64 S Ct 281.

The Federal Power Commission was *affirmed* in the "Hope" Case and reproduction cost—"appraisal"—went out of the window.

That cumbersome and expensive appraisal method of reaching a base in utility rate cases, *is no more.*

Indeed, in the shortly preceding Natural Gas Pipeline Case, concurring opinions of Mr. Justices Black, Douglas, and Murphy show that they understood the majority opinion to hold that repro was a lost cause.

"As we read the opinion of the court, the Commission is now freed from the compulsion of admitting evidence on reproduction cost or of giving any weight to that element of 'fair value.' The Commission may now adopt, if it chooses, prudent investment as a rate base—the base long advocated by Mr. Justice Brandeis. And for the reasons stated in the Southwestern Bell Teleph. Co. Case (262 US 276, 67 L ed 981, PUR1923C 193, 43 S Ct 544, 31 ALR 807) *there could be no constitutional objection if the Commission adhered to that formula and rejected all others."* (Our italics.) Concurring opinion of Mr. Justices Black, Douglas, and Murphy in Federal Power Commission v. Natural Gas Pipeline Co. 315 US 575, 606, 86 L ed 1037, 1060, 42 PUR NS 129, 150, 62 S Ct 736.

Shadows of the McCardle Case and other notable adjudications of the high court at Washington—demanding adherence to reproduction cost—are *banished* and the unworkable United Railways decision—requiring current depreciation *expense* to be figured on shifting reproduction cost—and, incidentally, permitting a capital gain to the utility where repro exceeds book—is *expressly overruled* by the Hope Case, *supra*, 320 US at pp. 606, 607, 51 PUR NS at pp. 202, 203; McCardle v. Indianapolis Water Co. 272 US 400, 71 L ed 316, PUR1927A 15, 47 S Ct 144; United R. & Electric Co. v. West, 280 US 234, 253, 254, 74 L ed 390, 410, 411, PUR1930A 225, 50 S Ct 123.

As to the move of the Hope Case to "knock over" the "precedent" of the United Railways Case on figuring annual depreciation expense against ephemeral reproduction cost, and the obvious unfittingness of the United Railways precedent, it is enlightening to read the discussion by a nonjudge writer whose literary ability and versatility we have admired for an appreciable time—Francis X. Welch, "Impact of the Hope Natural Gas Decision on Commission Regulation," *Public Utilities Fortnightly*, Vol. XXXIII, No. 3 (February 3, 1944, pp. 139, 146).

Returning to our dangling chain of thought: Even though the Supreme Court asserted afterwards that the Hope Case had "held" nothing except something else, the total elimination of the reproduction cost new theory and a thorough substitution of prudent or book investment less proper depreciation reserve, are implicit in the Hope adjudication which sustained the Federal Power Commission when it did exactly these things.

The Supreme Court in the Hope opinion admittedly did not disclose the rationale of discarding reproduction cost nor did it analyze the *reasons why* deduction of depreciation reserve from book cost is lawful and proper.

We therefore take the liberty of attempting a legal analysis of the proposition that book reserve may be deducted from original investment in determining a rate base.

The thesis may be stated succinctly as follows: Where depreciation is accrued accurately on a straight-line basis, the depreciation to be deducted

from value gross, in determining rate base, is the book reserve, where book value of property is used; and, where reproduction cost is in issue, then the reserve to be deducted, should be equated so as to represent the ratio to reproduction cost of property, that book depreciation reserve bears to book cost of property.

Reproduction cost need not, as a matter of law, be considered any longer. (Hope, Natural Gas Pipeline Cases, *supra.*) The reserve equated, however, can be applied to a repro cost, where this is used. That is, book value is $100,000 and book reserve is $20,000. The deduction for depreciation is $20,000 or 20 per cent. Reproduction cost becomes $150,000. Depreciation deduction of one-fifth then becomes $30,000. Reproduction cost is $75,000. Depreciation deduction of one-fifth then is $15,000.

The proposition is fundamental—and, it would seem, elementary—that straight-line depreciation and deduction of the reserve are inextricably woven. The Interstate Commerce Commission consistently has maintained this position. The National Association of Railroad and Utilities Commissioners has emphasized it time and again. The Supreme Court of the United States in the epoch-making Lindheimer Case plainly held that a utility cannot propound one set of figures for accruing straight-line depreciation *as an operating expense* and then fall back on accrued depreciation which does violence to the *reserve constructed by straight-line accruals.* Lindheimer v. Illinois Bell Teleph. Co. (1934) 292 US 151, 78 L ed 1182, 3 PUR NS 337, 54 S Ct 658.

The Lindheimer Case was concerned only with the correctness of the current depreciation charge. The Supreme Court, finding that the accruals were excessive—reserve of $48,000,000 against alleged existing depreciation of only $15,000,000—held that the company had failed in its proof as to the necessity for the amount charged as depreciation expense, and hence dismissed the company's suit, $20,000,000 to be refunded to patrons.

The counterpart must be true. If the expense accruals have been accurate, then the reserve balance of these accruals represents the correct accrued depreciation to be applied as an accrued offset against the plant account.

Conceivably the estimated depreciation could be credited directly to plant account. Indeed, it seems to be the practice of industrial and commercial businesses to deduct depreciation reserve from plant account on the *asset* side of the balance sheet and not to carry this reserve on the *liability* side at all. One survey is said to have shown that only 9.7 per cent of 641 companies classified depreciation reserves on the liability side. (Gilman, Accounting Concepts of Profit, p. 523.)

"It is still common practice of industrials and commercial businesses to deduct the reserve for depreciation from the plant account in their published balance sheets." (Report of Committee on Depreciation, NARUC, 1943, p. 32.)

This practice in hard-headed business of deducting depreciation reserve directly from plant account is graphic proof of the proposition that it *should*

be deducted. What can be more persuasive than *it is?*

As to a public utility like a telephone company, the depreciation reserve is simply the measure of exhausted service life from all causes for which depreciation properly is accruable.

Here is where straight-line depreciation is linked inseparably with deduction of the reserve from book cost. Depreciation charges are figured on *book* cost in the modern era, *supra.* Straight-line means to (1) estimate the service life of property, (2) accept its known cost, and divide (1) into (2) to obtain the current rate. (We ignore salvage, zero salvage, or negative net salvage.)

A piece of property costs $100. The company calculates that it will have a service life of ten years. We assume no salvage. It sets aside $10 a year for depreciation, and invests this in plant.

At the end of five years a rate case occurs. No retirements have been charged to the reserve as yet. The Commission says that the rate base is the original 100 plus the 50 added by the investment of the reserve *minus* the 50 which the company set aside as depreciation. This would leave a rate base of $100.

This is thoroughly logical and just. Thus, the investor's original investment of $100 is preserved intact. How can he ask any more under the prudent *investment* theory?

There should be no difficulty in legal reasoning whatsoever if courts and Commissions will bear in mind that the same factors which cause depreciation to accrue also cause accrued depreciation.

There are five main causes of depreciation:

1. Deterioration, or wear and tear.
2. Inadequacy.
3. Obsolescence.
4. Public requirements.
5. Casualties not covered by insurance.

In telephone property, inadequacy has been the greatest cause of depreciation (177 Inters Com Rep 351, 383)—at least until the industry was struck by the depression which retarded growth and minimized inadequacy. (Re Wisconsin Teleph. Co. 2–U–35, April 3, 1933, PUR1933C 282; July 5, 1934, 6 PUR NS 389.)

Obsolescence is a major factor in depreciation; and the panorama of changes in the art which any utility can paint in its history is a testimonial to this proposition.

Based on retirements amounting to $350,000,000 from the experience of 29 electric and gas utilities in a certain 10-year period, it was demonstrated that 72.2 per cent of retirements were due to inadequacy and obsolescence. (Report of Committee on Depreciation, NARUC, 1943, p. 37.)

Here is where confusion has crept into innumerable rate proceedings. Utility engineers testify that they *find* little or no inadequacy or obsolescence. Obviously, they cannot *see* it nor can they *look at* an anticipated public requirement or prospective casualty. In other words, what they find is merely *physical deterioration,* NOT DEPRECIATION—physical deterioration being only one out of the five elements of depreciation.

If a utility will consistently follow through its straight-line or service life depreciation accruals into the con-

cept of accrued depreciation, then at any given moment the reserve must be the measure of exhausted service life on an age-life basis.

The old Des Moines Gas Case, as far back as 1915, declared that accrued depreciation is depreciation according to "condition, *life, and age.*"—(Our italics.) Des Moines Gas Co. v. Des Moines, 238 US 153, 168, 59 L ed 1244, 1252, PUR1915D 577, 586, 35 S Ct 811. But the Des Moines Case was lost in the shuffle of the McCardle and cases of that ilk which decried "mere calculations based on averages and assumed probabilities"—a juridic reflection of not knowing the facts of life. The jurists in condemning scientific mortality studies as to service lives of depreciable property (often conducted most carefully by the utilities themselves in order to effect a proper annual depreciation rate) might just as rationally have blackballed the statistics of life insurance companies or the standard table of expectancy which is written into the statutes of many states. Suffice it that the Lindheimer Case, *supra,* repudiated any sweeping denunciation of "assumed probabilities" which the Pacific Gas & Electric and McCardle Cases had enunciated. Pacific Gas & E. Co. v. San Francisco, 265 US 403, 406, 68 L ed 1075, 1079, PUR1924D 817, 44 S Ct 537; McCardle v. Indianapolis Water Co. 272 US 400, 416, 71 L ed 316, 327, PUR1927A 15, 47 S Ct 144.

The Interstate Commerce Commission since the veritable "time immemorial" has clung to the tenet that where depreciation accruals have been on a straight-line basis, the reserve must be deducted from the gross asset figure to get at the true rate base.

Speaking of depreciation charges, the Interstate Commerce Commission says: *"As the result of making them a reserve will be created which will, if the charges have been accurately estimated, at any time equal the loss in existing property due to the process of consumption in service."* (Our italics.)

Again the Commission says: *"It is an essential part of this plan that the same accrued depreciation which is represented by the depreciation reserve should be deducted in determining the amount on which the company is entitled to a fair return. . . ."* (Our italics.)

And still again: "It is essential to bear in mind . . . that there is an inseparable connection between the straight-line method and the principle that accrued depreciation represented by the depreciation reserve must be deducted in ascertaining the rate-base value." (Re Depreciation Charges of Telephone Companies [1926] 118 Inters Com Rep 295, 301, 310 and 356, respectively.)

From pages 398–401 of 177 Inters Com Rep come the following observations:

"The telephone companies, however, repudiate the logic of their own position with respect to depreciation expense and deny, apparently, that it has any intimate relation to depreciation in value. . . ."

". . . Absurd incongruities follow . . . between the amount of the depreciation reserve which is defended as necessary and the amount of accrued depreciation which is estimated for valuation purposes."

Petitioner herein, contending for an

undepreciated book or investment cost, protests the deduction of the depreciation reserve and refers to the much quoted platitude of the New Jersey Case, so-called because it arose from the operation of the New York Telephone Company in New Jersey. That case, speaking of property represented by investment of the depreciation reserve, said: "Property paid for out of moneys received for service belongs to the company, just as does that purchased out of proceeds of its bonds and stock." Public Utility Comrs. v. New York Teleph. Co. 271 US 23, 32, 70 L ed 808, 813, PUR1926C 740, 746, 46 S Ct 363.

No one controverts that principle. The depreciation reserve does belong to the company. The property, if any, in which the reserve has been invested, is the property of the company. These truisms prove nothing, however.

The Interstate Commerce Commission well counters the opinion in the New Jersey Case, *supra*, when it says: *"It is not the* NEW *property which has been supplied through depreciation charges upon which we believe the company should have no return. It is rather the* OLD *property, or* SERVICE CAPACITY, *which has been* USED UP *and which the new property has replaced."* (Our italics and our caps.) Re Depreciation Charges of Telephone Companies (1931) 177 Inters Com Rep 351, 407.

Petitioner also relies on Wisconsin Teleph. Co. v. Public Service Commission (1939) 232 Wis 274, 337, 30 PUR NS 65, 107, 287 NW 122, where our court said:

"The amount disclosed by the depreciation reserve account is not kept in money, but is reinvested in the plant, and of course, appears in the appraisal of the plant, and upon this the company, according to the authorities, is entitled to earn a return."

Even if this isolated sentence in a 101-page opinion could be construed to mean that the Wisconsin supreme court endorsed an undepreciated value or cost as rate base, because of the "authorities," suffice it that the action of the Supreme Court of the United States on the Federal Power Commission's determination in the Hope Case, *supra*, has gone a long way toward annihilating those preëxisting authorities.

But we cannot imagine that the supreme court of Wisconsin in the Wisconsin Telephone Case was calling for an *undepreciated* cost or value in determining the rate base. To be sure, the depreciation reserve is reinvested in plant. The value of this plant appears in an appraisal. The cost appears in the book accounts. All of this is true.

Most assuredly, however, the Wisconsin supreme court was not advocating an undepreciated appraisal. This would defy its own prior decisions and those universally pronounced. Nor did our supreme court state that there need be no deduction for depreciation reserve or for some measure of accrued depreciation.

The depreciation reserve is invested in property, as our supreme court of Wisconsin says. By hypothesis, $50,000 is added to $100,000 in the company's property. But five years out of the 10-year service life of the original property have expired. The service life is 50 per cent gone. That is its "depreciation."

We are not denying to the company

the right to earn on the *new* property purchased by the funds from the depreciation reserve. We are denying it the right to earn on that 50 per cent of property which has been eaten up, consumed, extinguished by present depreciation *as disclosed by the depreciation reserve account.*

The integrity of the investors' investment at $100,000 has been strictly safeguarded. To allow an undepreciated rate base of $150,000 means that investors earn not only on their investment of $100,000 but upon an additional $50,000 which was built up out of rates charged for service, in other words, out of the pockets of the consumer.

Is this "prudent" investment? Is this "investment" at all? We believe patently not.

Way back when, among the other forgotten men in the gay 20's, was the Cumberland Case decided by the Supreme Court of the United States in 1909:

"It was obligatory upon the complainant to show that no part of the money raised to pay for depreciation was added to capital, upon which a return was to be made to stockholders in the way of dividends in the future." Louisiana R. Commission v. Cumberland Teleph. & Teleg. Co. 212 US 414, 424, 53 L ed 577, 582, 29 S Ct 357.

No part of the money paid for depreciation may be added to capital upon which a return is to be made to stockholders. Thus truly spoke Cumberland. Then, as day follows night, the depreciation reserve must be deducted from "capital."

Deduction of the depreciation reserve, we reiterate, merely denies the utility a return on exhausted service capacity *and does not deny a return on property.*

We would not be forced to write this elongated opinion today — the point would hardly be arguable—if Mr. Justice Roberts had not thrown the monkey wrench into the machinery by a gratuitous (but devastatingly costly) remark in the majority opinion in the Chesapeake and Potomac Case on June 3, 1935. (West v. Chesapeake & P. Teleph. Co. 295 US 662, 679, 79 L ed 1640, 1651, 8 PUR NS 433, 55 S Ct 894.)

Up to that time several leading court cases and the practically unanimous views of state Commissions were stressing the deduction of the depreciation reserve.

Mr. Chief Justice Charles Evans Hughes, when acting as a referee in 1918, initiated this line of cases when he made the classic statement of the conception in its clear simplicity:

"The amount of the depreciation reserve has not been held in a separate fund, but has been invested in the plant and business, and the assets in which the depreciation reserve is invested are embraced in those which have been valued for the purpose of determining the rate base. *Plaintiff thus has credit for all the property it uses in the public service, and there is simply deducted the amount of its own estimate of the accrued depreciation in its plant, which is the equivalent of its reserve maintained by collections from consumers. . . . In the absence of any countervailing evidence, the depreciation in the plant may fairly be taken at the amount shown in the books. . . .*" (Our italics.) Brooklyn Borough Gas Co. v. Public Service Commission (Reports of Referee,

Hon. Charles Evans Hughes, New York Supreme Court, July 24, 1918, 17 NY Off Dept R 81, PUR1918F 335, 352, 353.)

There is the perfect description of what the Public Service Commission of Wisconsin did in the case now before us and which we uphold: The amount of the depreciation reserve is invested in plant. *The assets in which the reserve is invested have already been valued in the rate base. Plaintiff thus has credit for all the property it uses* in the public service "and there is simply deducted *the amount of its own estimate* of the accrued depreciation in its plant, which is the equivalent of its reserve maintained by collections from consumers." (Our italics.)

We respect this gem of lucidity from Honorable Charles Evans Hughes, delivered in 1918. That would have remained a milestone if Mr. Justice Roberts had not injected into a majority opinion in 1935 the following comment, referring to the opinion of the COURT below, not to the order of the Commission:

"The opinion [of the court] in essence consists of the conclusion that, all the circumstances considered, it wil be fair to appraise the property at cost less depreciation reserve. *This rough and ready approximation of value is as arbitrary as that of the Commission, for it is unsupported by findings based upon evidence.*" (Our italics.) West v. Chesapeake & P. Teleph. Co., *supra*, 295 US at p. 679, 79 L ed at p. 1651, 8 PUR NS at p. 443.

Mr. Justice Roberts points out that the reserve *concededly* exceeded "actual" depreciation. (*Ibid.*) Of course it did. Reserve among Bell companies often runs three times as high as the "actual" depreciation that the engineers find (Lindheimer and Wisconsin Telephone Cases, *supra*). The depreciation reserves of the Bell System exceed a billion. That is why condemnation of the "rough and ready approximation" through deducting reserve, was a trenchant dictum.

This dictum was out of place, because in the very next breath the Supreme Court majority opinion declared that it "was not the function of the court below, to do the work of the Commission by determining a rate base upn correct principles." (*Ibid.*) In other words, the lower court's duty was solely to pass upon the Commission's order and not to devise a plan of its own on "correct" principles.

Then why announce that the *court's* plan was *not* correct and was "arbitrary"? That was not before the Supreme Court for review, and the opinion said so. The issue before the Supreme Court was primarily the lawfulness of the *Commission's* method of price trending, and the majority opinion had already said that this was unlawful. The opinion should have stopped there.

But the words on "arbitrary" deduction of depreciation reserve were spoken; and even an obiter dictum in a majority opinion of the Supreme Court of the United States hurls cogency.

We are aware that Mr. Chief Justice Hughes was part of the majority in the Chesapeake & Potomac decision, *supra*. Three Justices—Stone, Brandeis, and Cardozo—did dissent from the majority but upon the ground that due process was not in-

volved in *methods* pursued by a state Commission in fixing rate base, so long as the result was not confiscatory (rather prophetic of the Hope creed).

The fact that Mr. Justice Brandeis dissented in the Chesapeake & Potomac Case but made no mention of the majority's criticism of deducting depreciation reserve from book cost, may be strongly persuasive as to why Mr. Chief Justice Hughes also let it go by. Neither one considered it as an issue in the case, apparently. Both certainly were firm believers that depreciation reserve may be deducted in ascertaining rate base. We have quoted from the Chief Justice and now add, from the opinion of Mr. Justice Brandeis dissenting in the United Railways Case (United R. & Electric Co. v. West, 280 US 234, 286, 74 L ed 390, 428, PUR1930A 225, —, 50 S Ct 123, note 57):

"Nor need we express an opinion on the relation between a utility's depreciation reserve and the valuation of the accrued depreciation of its property. See Proposed Report of the Interstate Commerce Commission note 14, *supra,* at pp. 20–24. While it is true that the annual depreciation charge does not purport to measure the current actual consumption of plant, *it may be that the credit balance in the depreciation reserve is good evidence of the amount of accrued depreciation.* See New York Teleph. Co. v. Prendergast, District Court, SDNY decided November 7, 1929 (PUR1930B 33, 36 F2d 54). *It may also be that so much of the depreciation reserve as has not been used for retirements or replacement should be subtracted from the present value of the utility's property in determining the rate base,* on the theory that the amounts thus contributed by the public represent a part payment for the property consumed or to be consumed in service . . . These matters are not involved in the case at bar and as to them no opinion is expressed." (Our italics.)

The reference by Mr. Justice Brandeis to the Interstate Commerce Commission's position and to the Prendergast Case is indicative of what his attitude would be in a proper case. Both the Interstate Commerce Commission and the Prendergast decision, which we shall quote from, *infra,* uphold the deduction of the depreciation reserve.

To go back to Honorable Charles Evans Hughes' statement as a referee in the New York supreme court in 1918, we are able to perceive the three grounds for deducting depreciation reserve:

(a) The company, having invested the reserve in plant, has thereby already added to the gross assets to be valued in the rate base (or to be included as book investment). The utility loses nothing.

(b) The depreciation reserve deducted is *the utility's own estimate* of accrued depreciation. It is the best measure of the expired life and service capacity of the property.

New York Teleph. Co. v. Prendergast, PUR1930B 33, 53, 36 F2d 54, 66, brings this point out in another way: "The plaintiff was right about depreciation when it created its reserve, and it is wrong, in its position now, in its claim for a lesser sum as actual depreciation . . ."

(c) The reserve, says Honorable Charles Evans Hughes, is "main-

tained by collections from consumers."

This is the gist of the equity in the matter.

The customers, having provided funds to finance construction, should not be required to pay a return on the property which they, rather than the utility investors, have financed *and also* on the property whose service capacity is exhausted. This harks back to the Cumberland Case (1909) 212 US 414, 53 L ed 577, 29 S Ct 357.

The effect of NOT deducting the depreciation reserve is that the consumer pays *twice* for depreciation. He pays day in and day out for depreciation to build up the reserve and then pays forever a return upon valuation or investment *with the reserve added in.*

[4, 5] The petitioner in the case at bar—Community Telephone Company—maintains that there is no equity in deducting the reserve in its case because the company in the past has paid very meager dividends and accordingly, it argues, its depreciation reserve has been built up out of benefits withheld from the stockholders, who should not be penalized therefor.

There is some justice in the claim but unfortunately the circumstance that the company failed to pay enough dividends in the past, is "water over the dam." The company perhaps should have had its rates increased in earlier years. Present and future subscribers ought not to be required to pay disproportionately because past customers were left off too easy. The Supreme Court of the United States once pointed to a somewhat analogous situation:

"When, therefore, a public regulation of its [a utility's] prices comes under question, the true value of the property then employed for the purpose of earning a return cannot be enhanced by a consideration of the errors in management which have been committed in the past." (Knoxville v. Knoxville Water Co. (1909) 212 US 1, 14, 53 L ed 371, 380, 29 S Ct 148).

The clinching fact in Community's situation, moreover, is that its depreciation reserve is almost identical in percentage with its own engineers' estimate of accrued depreciation. As of December 31, 1946, the ratio of accrued depreciation to reproduction cost, as shown by petitioner's own exhibits before the Commission, was 36.91 per cent. "As of the same date, the ratio of the book depreciation reserve to telephone plant in service was 36.60 per cent" (Commission's Opinion and Order, p. 5.)

Community therefore clearly cannot question the *amount* of accrued depreciation since the book reserve corresponds in proportion, within a fraction of a per cent, to accrued depreciation as determined by itself through engineering studies.

The Community of course argues that its accrued depreciation should be measured as an offset to *reproduction* cost. That position, however, is untenable under the Natural Gas Pipeline and Hope Cases, *supra.*

Two high court decisions since Hope point up the lawfulness of deducting *some* "accrued" depreciation from *book cost,* where *straight-line* depreciation has been used.

Colorado Interstate Gas Co. v. Federal Power Commission (1945) 324 US 581, 89 L ed 1206, 58 PUR NS 65, 65 S Ct 829, affirms the case of

the same name in (1944) 54 PUR NS 1, 142 F2d 943, where, at page 955, it is indicated that the Commission had deducted "accrued depreciation" from *original cost.*

Panhandle Eastern Pipe Line Co. v. Federal Power Commission (1945) 324 US 635, 89 L ed 1241, 58 PUR NS 100, 65 S Ct 821, affirms the case of the same name in (1944) 54 PUR NS 26, 143 F2d 488 where, at p. 491, it is noted that the Commission had deducted "accrued depreciation" from "Actual Cost."

We know of no public utility which has ever sought to establish an undepreciated *reproduction* cost as a rate base—nor does Community ask that—and we have not heard of any organization other than Community which espouses an undepreciated investment cost as rate base, except it is said that the special committee of executives of Edison Electric Institute advocates such a theory. (Report of Committee on Depreciation, NARUC, 1944, pp. 51, 52.)

We cannot rationalize the view of Edison Electric Institute executives—if such be their view—unless they are thinking in terms of *sinking-fund* depreciation which, it is well known, some prominent electric utilities employ.

The electric utilities quite generally resort to a sinking-fund basis of depreciation. This, in a sense, is straight-line depreciation in that the "service value" of the property is distributed in equal installments over its estimated average service life; service value meaning the difference between cost and net salvage, net salvage being gross salvage less cost of removal. (If cost of removal exceeds gross salvage, then there is a negative net salvage.)

The difference between strictly straight-line and sinking-fund depreciation is, however, that under the latter the depreciation reserve is credited with interest, which, as compounded, cuts down the current depreciation accrual. Simply stated, with an investment of $1,000, assuming no salvage and a 10-year life, the straight-line annuity is $100; whereas the sinking-fund annuity, on a 5 per cent curve, is only $79.50 which results, however, in a total payment of $795 in operating expenses and $205 as the interest accretion, making the total of $1,000.

Where sinking-fund depreciation is used, *the reserve should not be deducted.* The act of impounding and compounding interest on the reserve balance produces the same result as deducting accrued depreciation (to the extent that the sinking-fund rate of interest approaches the rate of return). The savings thereby affected are converted to the benefit of the customers by reducing the total amount collected as depreciation charges, in proportion to the interest savings. To deduct the reserve under such circumstances is to rob the utility, for the utility is required to pay the interest on the depreciation fund out of its earnings below the line of return; and to deduct the reserve would be to deprive the utility of the principal on which the interest must be accumulated.

See: Re Duluth Street R. Co. (Wis) PUR1923D 705; Milwaukee Electric R. & Light Co. v. Milwaukee (Wis) PUR1918E 1.

While most regulatory Commissions appreciate this understanding of

sinking-fund depreciation and at least one court has followed it (Public Utilities Commission v. Capital Traction Co., 57 App DC 85, PUR1927B 824, 17 F2d 673), there apparently is a conflict among the authorities. The decided cases, beginning with the Knoxville Case, *supra,* called for deduction of *accrued depreciation* and some courts have made no distinction between straight-line and sinking-fund depreciation but have required deduction of the reserve even though built up on a sinking-fund basis. (Idaho Power Co. v. Thompson, PUR1927D 388, 19 F2d 547.)

The propriety of *not* deducting depreciation reserve where sinking-fund depreciation is used—and when the interest rate harmonizes with the rate of return—apparently was recognized in Federal Power Commission v. Natural Gas Pipeline Co. (1942) 315 US 575, 595, 596, 86 L ed 1037, 1054, 1055, 42 PUR NS 129, 62 S Ct 736.

We trust that—in the above rambling monograph of 77 pages in longhand so far—we have set out an easily understood idea—not one that teems with accounting perplexities. We have not had to resort to depreciation mysteries known as "half-cycle" or "asymptotic" nor to the Gompertz-Makeham formula ($l_x = k_s \, {}_sc^x$) which is a formula for figuring depreciation, not for mixing concrete.

The case presented involves plain old-fashioned straight-line depreciation adopted by petitioner and by the telephone industry generally. And straight-line imports the premise of distributing cost (with due regard to salvage) over service life to calculate annual accrual and thence its concomitant, the balance in the depreciation reserve standing out as the measure of accrued depreciation or "Recovered Investment." ("Depreciation — A Review of Legal and Accounting Problems"—By the staff of the Public Service Commission of Wisconsin, 1933, p. 150.)

We shall not extend this already inordinately long discourse, except to quote from certain persons, some of them "authorities" in the economic field or who are econ-legal thinkers, whose digests confirm our conclusion herein.

We can plagiarize no better characterization of depreciation reserve than that it is a "hole" in the assets—this coin of verbiage being lifted from Accountants' Handbook (Second Edition), p. 623, and attributed to a Professor Cole, who is as unknown to us as this unsung judge is to the professor. (Credit to Professor Cole is given in Report of Committee on Depreciation, National Association of Railroad and Utilities Commissioners, 1943, p. 167—"Accountants' Handbook" being alluded to by the NARUC Committee's report at the latter's page 33.)

When Professor Cole said that depreciation reserve was a "hole" in the assets, he declared with Phi Beta Kappa vividness that which it takes some judges 77 pages at the nethermost in order to get the judicial mind on paper.

Mr. John Bauer, director, The American Public Utilities Bureau, writing in 53 *Yale Law Journal* 495 (1944)—after the Hope decision—addresses himself to "Prudent Investment." We shall excerpt (pp. 506, 507):

"If proper plant and depreciation

accounting has been adhered to, the total cost of the plant units, less the depreciation reserve, is equal, at any given time, to the investment actually made, the full amount having been preserved." (Our italics.)

"*If the total original cost of plant were included in the rate base, the company would get a return not only on its own actual or unimpaired investment, but also on the amount of consumer contribution provided in the rates for the purpose of conserving the corporate investment.*" (Our italics.)

Bonbright, "The Valuation of Property," published in 1937, gives his point of view on "the spirit of the original cost principle" (Vol. II, pp. 1139, 1140):

"*Under this principle, the test of fair rates is their adequacy to yield a well-managed company a reasonable return on its actual capital investment. But if the company, in prior years, has been permitted to amortize a portion of its gross capital investment, through annual charges to depreciation, it cannot fairly claim the right to continue earning a return on this investment, for which it has already been fully recouped. Any other rule would involve double counting against the ratepayers. It would permit the company to earn a return on capital which, in effect, has been supplied by the consumers themselves.*

"*We conclude*, then, that when a company has already built up a depreciation reserve, *the amount of this reserve should be deducted* from the cost of its assets in the determination of a rate base under the 'original-cost' principle—not because the reserve measures 'actual depreciation' in an appraisal sense, but rather *because it measures amortized capital investment* in the accounting sense." (Our italics.)

It may be noted that at that time—1937—Professor Bonbright thought that the "precedents" in favor of deducting depreciation from book cost were not "clear cut" but "no holdings squarely to the contrary have come to our attention." (*Ibid*, p. 1138.)

Specter of the 1935 Chesapeake & Potomac majority opinion (295 US 662, 79 L ed 1640, 8 PUR NS 433, 55 S Ct 894) appears a bit contrary.

The most recent law review article that has come to our attention is "Net Investment Rate Making—The Deduction for Depreciation," 62 *Harvard Law Review* (1155, *May 1949*, five months ago. (Henry F. Lippitt II, member of the New York Bar.)

Mr. Lippitt agrees that reproduction cost no longer need be considered, in view of the Hope Case, but he feels that one "ghost" of Smyth v. Ames ([1898] 169 US 466, 42 L ed 819, 18 S Ct 418) remains, to wit: "This is in the deduction—usually from original cost—which is taken as a measure of the accrued depreciation of the utility's properties." (p. 1155.)

"*. . . Today the basic question still exists.*" (Our italics.) (p. 1156.)

Mr. Lippitt poses the question, which shall it be: (1) observed depreciation; (2) reserve requirement; or (3) the depreciation reserve "actually entered on the utility's books"?

Simmering down the question still farther because of Hope and a denial of certiorari in Potomac Electric Power Co. v. Public Utilities Commission (1947) 331 US 816, 91 L ed 1834, 67 S Ct 1303, Mr. Lippitt is convinced

that "observed depreciation is no longer an issue" and the choice is between: "(1) the reserve *requirement* which would exist under straight-line or other accepted depreciation methods, and (2) the depreciation *reserve actually entered* on the utility's books" (p. 1162).

Mr. Lippitt concludes (p. 1172):

"When the book depreciation reserve is deducted from book or original cost the result becomes a straightforward application of a net investment rate base for rate making."

We subscribe to Mr. Lippitt's conclusion, which is the 1949 "Wisconsin idea." Mr. Lippitt did overlook one decided case which, it seems to us, is "on all fours," except for the debatable implications of "certiorari denied" —judgment by hint.

This recent and incisively pertinent exposition upon the subject is Cities Service Gas Co. v. Federal Power Commission (1946) 63 PUR NS 276, 155 F2d 694—certiorari denied (1946) 329 US 773, 91 L ed 664, 67 S Ct 191.

The circuit court of appeals, tenth circuit, said at p. 702 of the majority opinion, 63 PUR NS at pp. 285, 286:

"As we have seen, the Commission deducted from the actual legitimate cost of the properties $20,779,558 for accrued and existing depreciation, and $1,024,891 for depletion of the producing properties. In so doing, it followed the recommendations of its staff, which computed both the annual and accrued depreciation on the average ascertained service life of the various classes of property included in the rate base. *The accrued depreciation was calculated as the sum of the annual depreciation expense from the beginning of the property, less total net cost of the property retired.* . . .

"We do not understand that the petitioner finds fault with the so-called 'straight-line economic life' method of determining annual and accrued depreciation, but *it does contend that depreciation is a fact, not a mere book entry or accounting concept,* and that in arriving at its depreciation reserve, the staff witness forsook actualities for *pure theory.*" (Our italics.)

The lower Federal court followed "pure theory"—the "book entry or accounting concept"—and indisputably approved the Commission's deduction of depreciation reserve—"*the sum of the annual depreciation expense from the beginning of the property, less total net cost of the property retired.*" (Our italics.)

That hits the nail squarely on the head.

Depreciation reserve — pure and simple — was deducted from "actual legitimate cost" (155 F2d at p. 700, 63 PUR NS at p. 283).

CERTIORARI WAS DENIED, 329 US 773, 91 L ed 664, 67 S Ct 191.

Certiorari being denied, maybe that answers the question as to whether deducting depreciation reserve from book cost violates the Federal Constitution.

But it does not do so *in so many words.* We are in harmony with the feeling (of Mr. Lippitt and doubtless many others) that the Supreme Court of the United States has not yet SAID that the *depreciation reserve may be deducted from book cost.*

Mr. Justice Roberts' 1935 ukase in the Chesapeake & Potomac opinion, *supra,* that a rate base of book cost less depreciation reserve was "arbi-

trary," is the bur in the cold cream and ought to be *expressly* overruled, if the Supreme Court, as manned today, no longer regards it as sound law.

Perchance the instant case from Wisconsin will go to Washington and there receive a final and unequivocal resolution, one way or the other. We hope so.

[6] We need deal with no other points raised by Community against the rate order other than its objection to the Commission's fixing of rates by exchanges, instead of on a system-wide basis. Some *municipality* might be able to object if it were being discriminated against but we cannot see that the company itself can remonstrate, so long as its over-all return is fair.

[7] It may be added that the Commission's written opinion sufficiently complies with 227.13, Statutes, which requires findings of fact. (Petitioner's brief, pp. 3, 8, 16, 17.) The Commission determined a rate base down to the last dollar, fixed a rate of return of definite per cent, discarded going value, estimated working capital, made a finding on maintenance, disallowed a wage increase not yet put in effect, and said nothing about *current* depreciation expense because: "There is no issue in this case involving annual charges for depreciation." (Petitioner's brief, p. 51.)

The Commission did not have to make a finding of "fair value" in the sense of reproduction cost less depreciation.

"Fair value" was ferried over the Styx—not by Charon but by Hope (*supra*).

The order of the Public Service Commission of Wisconsin should be affirmed.

It is so *ordered*.

MARYLAND PUBLIC SERVICE COMMISSION

Re Consolidated Gas Electric Light & Power Company of Baltimore

Case No. 4979, Order No. 46585
November 29, 1949

INVESTIGATION *of reasonableness of increased temporary rates for gas, electric, and steam-heating services; temporary rates made permanent.*

Return, § 83 — Gas and electric company — Combined operations.

An order making temporary rates of a company furnishing gas, electric, and steam-heating service permanent, was entered where the temporary rates produced a return of between 5½ and 6 per cent.

APPEARANCES: Philip H. Dorsey, Jr., People's Counsel; Thomas N. Biddison, City Solicitor, Edwin Harland, Deputy City Solicitor, and John J. Ghingher, Jr., Assistant City Solicitor, representing the city of Baltimore; Alfred P. Ramsey, Clarence W. Miles, and G. Kenneth Reiblich, of Counsel, for Consolidated Gas Electric Light and Power Company of Baltimore.

By the COMMISSION: The Commission, by its Order No. 45940 entered herein on April 7, 1949, 78 PUR NS 474, authorized Consolidated Gas Electric Light and Power Company of Baltimore to put into effect schedules of temporary rates for the rendition of gas, electric, and steam-heating services and to charge in accordance with the said schedules for all services billed starting with the May, 1949, meter readings. The order provided that the schedules of temporary rates, which increased the basic rates for all three services by 11½ per cent, should remain in effect until the permanent rates of the company are prescribed or approved by the Commission but in no event for a longer period than nine months, unless such period should thereafter be extended by order of the Commission for a further period not to exceed three months. The collection of the temporary rates was conditioned upon the company entering into bond in the principal amount of $5,325,000 to insure prompt refund by the company to those entitled thereto of all amounts which the said company might collect or receive in excess of such rates and charges as shall be finally determined by the Commission. The required bond, with satisfactory security, was given and the rates accordingly became effective on the date indicated and continue in effect at the present time.

In its opinion, accompanying the said order, the Commission referred to various previous proceedings concerning the rates and affairs of the company and discussed at some length the facts and circumstances which led up to the filing of the application for rate relief, both temporary and permanent. The evidence in the case, comprising both testimony and exhibits, was examined and summarized and the conclusions of the Commission set forth. In view of the extended discussion of the various aspects of the case in that opinion, it is unnecessary to review or restate what we said therein and we can at this time confine ourselves to the changes and developments which have since occurred.

The hearing with respect to the permanent rates was opened on October 27, 1949, and at the conclusion of the presentation of the company's case recess was taken, at the request of people's counsel and the assistant city solicitor, representing the city of Baltimore, until November 9, 1949, on which date the hearing was concluded.

It was pointed out at the hearing that, subsequent to the entry of the Commission's order establishing temporary rates, there have been several very important developments affecting this utility. Under authority of the Commission's Order No. 46173, entered on May 27, 1949, Consolidated has issued 219,546 additional shares of its common stock, without par value; of this total 120,733 shares were subscribed and paid for at the price of $60 per share upon the exer-

cise of subscription warrants issued to common stockholders and the remaining 98,813 shares were sold to a group of underwriters at the subscription price of $60 per share, the proceeds from the entire issue amounting to $13,172,760. The company is also presently engaged in refunding its outstanding bonds, a financing program of major proportions which is necessary in order that it may put itself in a position to issue additional bonds to help finance the large construction program during the next few years and thereafter as required by its expanding business.

Another development of real significance since the hearing concerning temporary rates and the Commission's decision with respect thereto is the assurance that natural gas will be made available for the Consolidated's customers in a relatively few months. In the temporary rate case we said that while the indications were that natural gas would ultimately be made available to the Baltimore area, it then seemed that it would not be possible for a full supply to be available for two years. In June, hearings were held by the Federal Power Commission on the application of Atlantic Seaboard Corporation to supply natural gas to Baltimore and on July 26th that Commission issued a certificate of public convenience and necessity to Atlantic for the service of natural gas to Baltimore. The Public Service Commission of Maryland has since heard and approved the application of Consolidated to convert its facilities to the manufacture of gas of 1,050 BTU heating value, the conversion of its service to the public from 500 BTU artificial gas to straight 1,050 BTU natural gas, which at times of maximum load and in emergencies, will be mixed with high BTU manufactured gas. Construction work, which was started immediately following our approval, is now well under way and is scheduled for completion by May 1, 1950, on which date the conversion to natural gas is to start. At the hearing concerning the conversion to natural gas Consolidated assured the Commission that the introduction of natural gas would make possible substantial reductions in the rates for gas service and has obligated itself to make such reductions.

In view of the fact that new rates for gas service will be established around May 1, 1950, and that a substantial reduction in gas rates has been indicated by Consolidated, people's counsel stated at the hearing that he did not deem it appropriate at this time to raise the question as to the rate base, and the petitioner and all protestants agreed to accept the company's 1923 unified rate base brought to date with net additions, thus leaving it to the Commission to determine whether or not the present temporary rates produce a greater rate of return than that fixed by the Commission in the temporary rate proceeding.

In our opinion of April 7, 1949, *supra,* we referred to the reductions ordered by the Federal Power Commission in the charges made to Consolidated by the two hydroelectric companies and to the litigation arising from such action. Unfortunately, the situation has not since cleared up in any respect and we are no more able to say at this time what saving in the charges for hydroelectric service will ultimately come to the Consolidated

Company and its customers than we were at that time.

In that opinion, 78 PUR NS at p. 483, the Commission said: "If the downward trend in the cost of fuel used in the production of gas continues it is not unlikely that, before the start of the next heating season, the reduction in charges under the fuel rate adjustment clause will, to a large degree, offset the effect of the temporary increased rates for gas service provided by the emergency rate schedules." Happily, this prediction has been borne out to such an extent that the charges now being paid for gas service are, for most customers, slightly lower than they were when the application to establish temporary rates was being heard. By reason of the much lower charge now being exacted as a fuel rate adjustment, the total net cost of gas service in the month of December, 1949, for the customer using 6,000 cubic feet (which consumption may be considered typical for the domestic customer using gas for cooking and water heating) will be $6.23, as against $6.28 in February, 1949, before the imposition of the 11½ per cent increase; and for the customer using 40,000 cubic feet (which would include many who use gas for house heating in addition to the other domestic purposes) the charge for December's consumption will be $30, as against $31.66 in February, 1949. That is to say, the decrease in the fuel rate adjustment charge from 17 cents per thousand cubic feet in February to 6 cents in December has more than offset the increase of 11½ per cent under the emergency rate schedules. Naturally, we do not know, and we cannot predict, to what extent changes in the cost of fuels will hereafter affect the charges to customers under the fuel rate adjustment clause.

Herman L. Gruehn, vice president of the Consolidated Company, who testified for the utility at the temporary rate hearing, and who was the only witness at the hearing concerning permanent rates, presented exhibits bringing up to date the figures shown in the exhibits offered by him at the earlier hearing.

Company Exhibit No. 3-b shows that the actual operating income for the twelve months ended September 30, 1949, was $9,408,198; as the effect of the temporary rates was to increase Operating Revenues between May 1st and September 30th by $2,671,000, which sum had the effect of increasing Operating Income $1,614,000 (after allowance for applicable taxes), the Operating Income for the year would have been $7,794,198 without the benefit of the temporary rates; another exhibit, No. 4-b, starts with the rate base at October 31, 1946, as determined by the Commission's Order No. 42921 of December 30, 1946, 67 PUR NS 144, and brings it up to subsequent dates by the exact method used by the Commission in establishing the valuation of October 31, 1946; this exhibit also gives the Operating Income from Utility Operations and the resulting rates of return for the several periods. The summary figures of this exhibit are as follows:

	12 Months ended 10-31-1946	1947	1948	12 Months ended 9-30-49
Rate base at end of period	$145,243,978	$158,238,148	$175,724,880	$185,741,867
Operating Income from Utility Operations	$9,120,810	$8,343,833	$8,187,613	$9,408,198
Rate of Return	6.28%	5.27%	4.66%	5.07%

If the temporary rates had not been in effect, the income for the year ended September 30, 1949, would have been reduced to $7,794,198 and the rate of return would have been only 4.20 per cent.

Company Exhibit No. 13 projects the figures through the remainder of the year 1949 and to April 30, 1950, by estimating the additions to the rate base during the last three months of the present year and the first four months of 1950 and by estimating the operating income for these two periods, such estimates assuming that the Federal income tax rate of 38 per cent will continue and that the flow of the Susquehanna river, which determines the quantity of hydroelectric energy the company receives, will be average. The estimated figures so obtained are:

	With Present Rates Year Ending		Without Benefit of Temporary Rates Year Ending	
	12-31-1949	4-30-1950	12-31-1949	4-30-1950
Operating Income from Utility Operations	$10,225,000	$11,500,000	$7,522,000	$7,300,000
Rate Base	$191,582,000	$198,000,000	$191,582,000	$198,000,000
Rate of Return	5.34%	5.81%	3.93%	3.69%

The significance of the date of April 30, 1950, is that it provides for one full year's operation at the increased rates and if the estimates are borne out it will be seen that the return to be earned will be 5.81 per cent on the rate base heretofore found by the Commission, brought up to date by the precise methods followed by the Commission in establishing the rate base. It is to be noted that while it is now estimated that the rate base will be $191,582,000 at the end of 1949, when the hearing on the temporary rates was held last February the figure submitted was $192,787,000. In explanation of this difference it was testified at the recent hearing that while the expenditures in 1949 for new facilities will be more than was earlier estimated, some of the other items which go to make up the rate base, especially materials and supplies, will be less.

After giving consideration to all the evidence and the many exhibits filed in this case, the Commission is of the opinion, and so finds, that the temporary rates have produced and will produce a rate of return between 5½ and 6 per cent and will, therefore, enter an order making the temporary rates permanent.

The rates to be charged The Baltimore Transit Company present a special problem. In 1921, at the time of the Consolidated Company's purchase of the Pratt street powerhouse of The United Railways and Electric Company, a contract was executed by the

two companies providing for the supply of Railways' electric requirements. A copy of this contract was duly filed with this Commission. The application of this complicated contract presented numerous difficulties and finally the question of a proper rate was submitted for judicial determination. In 1935, the United States court of appeals for the fourth circuit, in passing on this question, pointed out certain factors as to the size and permanency of Railways' load and the unusually favorable power factor thereof, which would warrant a lower rate under the contract than was provided by the Consolidated Company's T Schedule. As a result of that opinion, a supplementary contract between Consolidated Company and The Baltimore Transit Company was executed March 1, 1940, and a copy of that contract was also duly filed with this Commission. Under it, a revised rate, and a fuel rate adjustment applicable thereto, were agreed to. From a Stipulation of Agreed Facts filed in this case by the two companies, we find that the present load and present power factor of the Transit Company are substantially the same as they were in 1940 and the term of the contract remains unchanged. We also find that the many physical conditions of this service, which are entirely unique and which formed the basis of the 1940 contract, still prevail. For example, the Transit Company owns and operates its own extensive general transmission system and the Consolidated Company provides special switching and other facilities for the sole use of the Transit Company. We therefore conclude that since many of the elements which were undoubtedly considered in the formulation of the 1940 contract are operative at the present time, the 1940 contract rate, under present conditions, should be adhered to. The contract rates remained unchanged at the time of the electric rate reductions in 1947 and, in our opinion, they should not be increased at the present time. Either party to that contract, under its terms, may apply to this Commission from time to time to increase or decrease such contract rate, and our order in the premises will be without prejudice to such action at any time by either of the parties or by this Commission on its own motion.

An appropriate order will be entered.

Re Capital Transit Company

Order No. 3612, P.U.C. No. 3490/1, Formal Case No. 390
December 19, 1949

INVESTIGATION *by Commission to determine whether use of radio receivers on streetcars and busses is consistent with public convenience, comfort, and safety; investigation dismissed.*

Service, § 69.1 — Commission jurisdiction — Equipment — Comfort and convenience.

1. The Commission has authority, after hearing upon its own motion and complaint, to direct such changes in equipment or condition of vehicles of common carriers as are necessary to promote the comfort and convenience of the public, p. 123.

Service, § 407 — Radios in streetcars and busses — Commission approval.

2. The installation and use of radio receivers on streetcars and busses was approved where it appeared that radio reception was not an obstacle to safety of operation but, on the contrary, was favorable to the public's comfort and convenience in that it created good will among passengers and tended to improve riding conditions, p. 124.

By the COMMISSION: On July 14, 1949, this Commission, on its own motion, issued its Order No. 3560 instituting an investigation to determine whether or not the installation and use of radio receivers on the streetcars and busses of Capital Transit Company is consistent with public convenience, comfort, and safety. At that time, the company had a number of streetcars and busses equipped with radio receivers. It was generally understood that eventually most of the streetcars and busses would be so equipped.

After appropriate notice, formal public hearings were held on the subject matter of the order of investigation on October 27, October 28, October 31, and November 1, 1949.

Washington Transit Radio, Inc., and Franklin S. Pollak and Guy Martin were granted the right to intervene and participated throughout the proceedings.

In addition to the participation of people's counsel and of the interveners, appearance was noted for the Star-Times Publishing Company of St. Louis, Missouri.

Full opportunity was afforded the representatives of citizens and civic associations and of every other interested group, and to every individual present, to express their views respecting the matter before the Commission.

Brief was filed on November 23, 1949, by interveners, Franklin S. Pollak and Guy Martin.

Reply brief was filed jointly by Capital Transit Company and Washing-

ton Transit Radio, Inc., on December 5, 1949.

Positions of the Parties

In their joint brief filed on December 5, 1949, Capital Transit Company and Washington Transit Radio, Inc., summarized their position in this proceeding as follows:

(a) That there is no substantial evidence of record showing that the installation of radio receivers on streetcars and busses, and their use in reception of the type of program transmitted to them, is inconsistent with public convenience, comfort, or safety;

(b) That the probative evidence of record is overwhelming in showing that there is no element of lack of safety involved in such installation and use of radios, and that the large majority of the transit riding public accept, and enjoy, and benefit by the programs received thereon;

(c) That individual or small minority group objections or contentions, based upon asserted rights, under the First or Fifth Amendments, to privacy, freedom of speech, liberty, and property, and dislike for the programs, in the Capital Transit Company, vehicles available for public use, are without merit and are irrelevant to any issues in this proceeding arising out of the statutory powers of the Commission; and

(d) That this proceeding should be dismissed for want of evidence to sustain any lawful action by the Commission.

Interveners, Pollak and Martin, summarized their arguments in their brief filed on November 23, 1949, in the following manner:

(1) The use of radio receivers in the circumstances of this case deprives riders of freedom to listen or not to listen, in violation of the First Amendment to the Constitution, and deprives riders of liberty without due process of law in violation of the Fifth Amendment.

(2) The use of radio receivers in the circumstances of this case takes the private property of riders for private use in violation of the Fifth Amendment to the Constitution.

(3) Apart from constitutional questions, the use of radio receivers in the circumstances of this case is inconsistent with public convenience, comfort, and safety because of the effects of the broadcasts on a significant number of riders and operators.

(4) The approval of these broadcasts by a majority of the riders and a majority of the operators is irrelevant.

Problem before This Commission

[1] The investigation conducted and the evidence presented at the formal public hearings held on the subject of the installation of radios in the streetcars and busses of Capital Transit Company must, of necessity, be considered by this Commission strictly in the light of its jurisdictional powers. The extent of these powers was indicated in the notice of investigation issued by the Commission on July 14, 1949, wherein the purpose of the investigation was defined as being the determination as to whether or not the installation and use of radio receivers in streetcars and busses is consistent with public convenience, comfort, and safety.

The Commission's decision on such issues must rest upon a basis more tangible than impassioned pleas which reflect personal feelings either in fa-

vor of or against radios in transportation vehicles.

As indicated above, one of the requirements contained in the act which is administered by this Commission is that every public utility operating within the District of Columbia must furnish service and facilities that are reasonably safe. This Commission is given authority by such act, after hearing upon its own motion or upon complaint, to direct such changes in equipment or condition of the vehicles of common carriers as are necessary to promote the comfort or convenience of the public. It was to these questions that the Commission's investigation was directed.

Summary of Testimony.

[2] The record shows that, as of October 15, 1949, there were 212 radio sets installed in the company's streetcars and busses, and that it is contemplated that a total of 1,500 sets will be installed.

On December 13, 1948, the company entered into a contract with Washington Transit Radio, Inc., which provides, among other things, that the radio receiving equipment will be installed and maintained by Transit Radio without cost to Capital Transit Company. Washington Transit Radio, Inc., in turn, has a contract with radio station WWDC–FM covering program service for reception in the vehicles of Capital Transit Company.

As indicated hereinabove, all interested parties were given full opportunity to express their views. At the beginning of the hearing, resolutions submitted to this Commission by the Federation of Citizens Associations and certain of its member associations were listed, and representatives from such associations were permitted to expand the views expressed by their groups. The Federation of Citizens Associations went on record as favoring the retention of radios in streetcars and busses, as did the North Washington Council, which represents about 22 different associations, and the National Federation of Federal Employees, Local No. 2. Other associations favoring music on transportation vehicles included the Northeast Businessmen's Association, Inc., and the National Association of Letter Carriers. As to the individual Citizens' Associations which filed resolutions with this Commission, three expressed opposition to radios and fifteen were in favor of their retention. A group of forty-three persons, designating themselves as the Transit Riders Association, registered their opposition.

In general, the objections raised by individuals who attended the hearings to radios in transportation vehicles were based upon the following reasons, among others:

It interfered with their thinking, reading, or chatting with their companions; it would lead to thought control; the noise was unbearable; the commercials, announcements, and time signals were annoying; the music was of the poorest class; the practice deprived them of their right to listen or not to listen; they were being deprived of their property rights without due process; their health was being impaired; the safety of operation was threatened because of the effect of radios upon the operators of the vehicles.

Having in mind the salient points of public convenience, comfort, and

safety, the Commission has given very careful consideration to the testimony bearing on these factors.

Captain Loraine T. Johnson, representing the Police Department of the District of Columbia, analyzed for the record statistics covering traffic accidents since July 1, 1949, in which streetcars and busses were involved and stated that, in his opinion, radio-equipped vehicles do not enter into the traffic picture at all.

William H. Voltz, planning engineer of the Department of Vehicles and Traffic, stated that, in the absence of any evidence that radios in motor vehicles have been a contributing factor in traffic accidents, the department which he represented does not now consider such installations to be a traffic matter.

The engineering bureau of this Commission, through F. A. Sager, chief engineer, concluded that when the radio is properly tuned safety of operation is not impaired due to the operation of the radio.

Employees of Capital Transit Company charged with the supervision and instructing of streetcar and bus operators testified that they have not found, in the performance of their duties, that the reception from radios interfered with their operation of the vehicles nor with the safety of their operation. These witnesses also testified that it was apparent that reception over the radio speakers did not affect the safety of operation by other operators observed by them as instructors or supervisors. Further, the witnesses stated that the radio reception does not interfere with the ability of the operator to hear street signals, such as policemen's whistles and auto horns.

It was the opinion of the operators that music on the vehicles had a tendency to keep the passengers in a better mood, and that it simplified transit operations.

An analysis of the accidents involving streetcars and busses reflects the fact that the radio does not in any way interfere with efficient operation and has not been the cause of any accidents, according to the testimony of a company witness who is a safety supervisor.

A public opinion survey was conducted by Edward G. Doody & Company, from October 11, 1949, to October 17, 1949, in order to determine the attitude of Capital Transit Company customers toward transit radio. This survey employed the rules of random selection and was confined to interviews aboard radio-equipped vehicles. The principal results obtained through the survey, as presented in this record, were as follows:

Of those interviewed, 93.4 per cent were not opposed; that is, 76.3 were in favor, 13.9 said they didn't care, and 3.2 said they didn't know; 6.6 per cent were not in favor, but when asked the question "Well, even though you don't care for such programs personally, would you object if the majority of passengers wanted busses and streetcars equipped with radio receivers," 3.6 said they would not object or oppose the majority will. Thus, a balance of 3 per cent of those interviewed were firmly opposed to the use of radios in transit vehicles.

Testimony presented by Frank F. McIntosh, consulting engineer, related to absolute sound levels obtained in a number of streetcars and busses. The measurements were taken by Mr. Mc-

Intosh at three points; namely, at the front of the vehicle—near the driver—at the middle of the vehicle, and within about 6 feet of the rear of the vehicle. Also, the measurements were made while the vehicle was in motion, with and without the radio on, and while the vehicle was standing with the radio on. The measurements were made in terms of decibels, which, roughly speaking, represents the smallest increment of increase or decrease in audio level that the ear can obtain or understand or recognize.

The testimony of this witness was to the effect that the actual energy contributed by the radio was so small that it was not possible on the meter to measure the difference in sound level with the radio on and off. He explained that the reason the radio is heard is not necessarily a matter of straight energy. It is a matter of the working of the mind; that is, a person can differentiate between sounds or can get used to a sound and put it out of his mind. The witness also testified that it is not possible to provide enough energy through a radio sound system that could economically be put in a car to mask out other sounds.

Other arguments presented for the consideration of the Commission pertained to the use of radios in streetcars and busses at times for public purposes, such as the necessary or emergency rerouting of vehicles; the publicizing of public interest enterprises, and for the protection of the public in time of crisis.

Conclusion

From the testimony of record, the conclusion is inescapable that radio reception in streetcars and busses is not an obstacle to safety of operation.

Further, it is evident that public comfort and convenience is not impaired and that, in fact, through the creation of better will among passengers, it tends to improve the conditions under which the public ride.

In the light of these conclusions, it is obvious that the installation and use of radios in streetcars and busses of the Capital Transit Company is not inconsistent with public convenience, comfort, and safety. For the foregoing reasons,

It is *ordered:*

That the investigation initiated by Commission Order No. 3560 be, and it is hereby, dismissed.

Re G. C. Kroggel, Doing Business As New Mexico Mechanical Equipment Company

Case No. 281
November 15, 1949

PETITION *for certificate to abandon electric service; petition granted.*

Service, § 229 — Grounds for abandonment — Invasion of territory.

A certificate to abandon service should be issued to one whose territory has been taken over by an electric coöperative, without just compensation and in violation of the Rural Electrification Act, and whose customers are being served by the coöperative.

By the COMMISSION: G. C. Kroggel, an individual, d/b/a New Mexico Mechanical Equipment Company, Corona, New Mexico (hereinafter referred to as "Petitioner"), a public utility within the meaning of the New Mexico Public Utility Act, Chap 84, Laws of 1941, having filed an appropriate petition for a certificate to abandon electric service to consumers in Corona, New Mexico, and adjacent areas, and the Commission having considered said petition and having held a public hearing in the above-entitled matter at 10 o'clock, A. M., on the 15th day of November, 1949, in room 29, State Capitol, Santa Fe, New Mexico, and considered the record made therein, and being fully advised in the premises, finds that:

1. The Commission, under the provisions of § 48 of the New Mexico Public Utility Act, has jurisdiction over Petitioner in this proceeding and over the matters presented in said petition;

2. The statutory notice of hearing was mailed to all interested parties and was also published in the Lincoln County News Outlook on October 21, 1949, as required under the provisions of Rule 27 of the Commission's Rules of Practice and Procedure;

3. Petitioner's generating facilities and entire distribution system, including services and meters, have been removed or are in the process of removal from the town of Corona and adjacent areas, formerly used and useful in rendering electric utility service to consumers thereof;

4. The territory previously served by Petitioner has been taken over by the Central New Mexico Electric Cooperative, Inc., without just compensation and in violation of the Rural Electrification Act, and all of Petitioner's former customers are now be-

ing served by the coöperative and that the coöperative contemplates continuing service to Petitioner's former customers and Petitioner can no longer continue in business;

5. The issuance of a certificate to abandon service as herein sought is lawful and is in furtherance of the public interest;

The Commission *orders* that:

(a) A certificate to abandon electric service in the territory referred to in said petition be and the same hereby is granted to Petitioner;

(b) Petitioner is *further ordered* to refund all unrefunded deposits to former consumers less any unpaid service charges at date of disconnection that previously have not been refunded; that where the original deposit receipt has been lost or mislaid and cannot be returned to Petitioner, said deposit shall be returned upon the filing of appropriate evidence that the deposit has not been previously returned and that Petitioner shall be relieved of any further claims for said deposit;

(c) This order shall constitute appropriate evidence of the issuance of the certificate to abandon service as aforesaid.

Industrial Progress

A digest of information on new construction by privately managed utilities; similar information relating to government owned utilities; news concerning products, supplies and services offered by manufacturers; also notices of changes in personnel.

Duquesne Light's 1950 Program Expected to Reach $26,000,000

DUQUESNE LIGHT COMPANY spent over $23,000,000 during 1949, as part of its 5-year $112,000,000 postwar expansion and construction program, which was begun in 1947. The total cost of the 1950 expansion program is expected to reach about $26,000,000.

Highlight of the 1949 construction activity was the placing in service of a new 80,000-kilowatt turbine-generator unit at the Phillips power station on October 18, at a cost of over $11,000,000.

Plans for 1950 include the installation of another additional 80,000-kilowatt turbine-generator at Phillips power station, the installation of 16 package-type substations, completion of the coal unloading dock at Phillips power station, the installation of a number of new 66,000-volt transmission lines, and one 11,000-volt line, the installation of 30,000 KVA transformer banks at one power station and 3 substations, and the construction of a new district headquarters.

Gas Industry to Stage Spring Style Show to Promote Ranges

CAPITALIZING on the feminine desire for the newest, the latest, and the most beautiful in home furnishings as well as in fashions, the American Gas Association is launching a "Spring Style Show" promotion designed to show and sell modern automatic gas ranges to women during the months of April, May, and June.

Gay and colorful portfolios bedecked with birds, flowers, rabbits, and other decorations synonymous with spring, shortly will be mailed to sales executives of all gas utility companies. These portfolios comprise a program for a complete Spring Style Show campaign, replete with suggestions for floor and window displays, local advertising, premiums, and giveaways. The portfolio outlines the organization and operation of a complete sales floor style show using models and the latest innovations in spring millinery and women's clothing.

Range manufacturers are coöperating in the Spring Style Show and each of the leading gas range manufacturers has designated a new model as its Spring Style Show number.

$18,000,000 Program Planned By Florida Pwr. & Lt.

FLORIDA POWER & LIGHT COMPANY has an $18,000,000 construction program for 1950, which is part of the company's postwar $108,000,000 expenditure on improvements and expansion.

The 1950 budget calls for $5,500,000 to be spent on new power plants, $9,000,000 on improvements and additions to customer service facilities, and $2,000,000 for new high voltage transmission lines and improvement of other transmission facilities.

The remainder includes addition to gas production and distribution facilities and to general building and property items and equipment.

G-E Appointment

THE appointment of James D. Lowe as wire and cable specialist has just been announced by J. J. Lengyel, manager of sales for the construction materials department of Gen-

(*Continued on Page 26*)

eral Electric Company. Mr. Lowe has been assigned to the department's New York district and will make his home office at the Bridgeport plant.

Previous to his present appointment, Mr. Lowe was commercial engineer for the wire and cable division.

Irving Trust Announces Several Promotions

IRVING TRUST COMPANY has announced the following promotions:

Douglas E. McNamara—from assistant vice president to vice president—Mr. McNamara has had wide experience in the loaning activities of the bank.

Michael Sieniawski—to assistant vice president—Mr. Sieniawski is associated with the company's foreign division, representing the company in the Latin American countries, Spain, and Portugal.

Frederick W. Baker—to assistant secretary—Mr. Baker is connected with the company's loaning activity, traveling in Arkansas, Kansas, Louisiana, Mississippi, New Mexico, Texas, and other Southwestern states.

Eugene D. Dixon—to assistant secretary—Mr. Dixon, whose experience with the company has been in credit work, is now attached to the loaning staff at the company's branch office in the Woolworth building.

J. Franklin Jones—to assistant secretary—Mr. Jones is with the bank's branch office at Forty-eighth street and Rockefeller Plaza as a member of the loaning staff.

Edwin A. Schoenborn—to assistant secretary—Mr. Schoenborn is also a member of the company's loaning staff, covering New York City accounts at the company's main office.

Plans Million Dollar Construction Program

MALCOLM BRIDGWATER, vice president of the newly-formed Northern Arizona Light and Power Company, has announced a $1,089,700 construction budget for the 14 months from November 1, 1949 until the end of 1950.

C. F. Norberg Elected Executive Vice President of Exide

CARL F. NORBERG has been elected executive vice president of The Electric Storage Battery Company. He was formerly vice president in charge of manufacturing since 1944.

Dry Type Lighting Transformers

A REDESIGNED, improved line of dry type general purpose lighting transformers is announced by Marcus Transformer Company, Inc., Hillside, New Jersey. Physical changes have been made which permit greater circulation of air through and around the transformer resulting in lower operating temperatures. The built-in wiring compartment has been enlarged

(*Continued on Page* 28)

and the amount of available knock-outs have been increased to facilitate the wiring of either an individual transformer or three units used in a three phase, completely self-contained bank.

"Portable Office" for Utility Service Men

A HANDY Meter or Service Order card carrying case for service men of gas, electric, and water utilities has been placed on the market by Remington Rand Inc.

The case, a wallet-type kit of sturdy leather, holds 6 x 4 size order cards securely against a firm surface for easy posting, and provides a pocket in which to place the completed orders. The pocket also will contain a pad of the temporary order blanks used in recording emergency orders.

More information on the carrying case can be obtained at any Remington Rand branch office, or by writing to the company's home office at 315 Fourth avenue, New York 10, New York.

Contest for Gas Incineration Promotion Ideas

THE American Gas Association's gas incineration committee, under the chairmanship of Ira J. Rapson, Michigan Consolidated Gas Company, has initiated an idea contest to stimulate sales of gas incineration during 1950.

Eight members of the gas incineration division of the Gas Appliance Manufacturers Association have sponsored the contest: American Incinerator Corporation; Autogas Company; Bowser, Inc., Incineration Division; Brule Incinerator Corporation; Calcinator Division, Valley Welding & Boiler Company; General Engineering Company; Incinerator Products Company; and Electrocap Mold Company.

These companies have contributed $500 in cash awards available to any executive or employee of any gas utility company, or any service or holding company which is a member of AGA. Employees of the gas incinerator manufacturers and their advertising agencies are excepted.

Awards will be made to those contestants who, in the opinion of the Jury of Awards, submit the best ideas for increasing the sale of the modern gas incinerator. Such ideas can consist of, but are not limited to: an essay of not more than 300 words on why gas utility companies should promote the sale of modern gas incineration; an outline of a sales or promotional program; a suggested advertisement; a suggested sales presentation for salesmen; a suggested display; or any other ideas which can be used to promote or sell gas incineration.

The contest will be open from January 23 to February 28, 1950. All entries must be addressed to Mr. Ira J. Rapson, AGA Gas Incineration Committee, 420 Lexington avenue, New York 17, N. Y.

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• This Directory is reserved for engineers, accountants, rate experts, consultants, and others equipped to serve utilities in all matters relating to rate questions, appraisals, valuations, special reports, investigations, financing, design, and construction.

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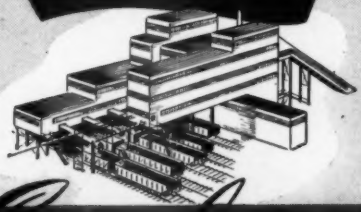

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